

The Spectral Energy Distributions of Fermi Blazars

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ABSTRACT

In this paper, multi-wavelength data are compiled for a sample of 1425 Fermi blazars to calculate their spectral energy distributions (SEDs). A parabolic function, $\log(\nu F_\nu) = P_1(\log\nu - P_2)^2 + P_3$, is used for SED fitting. Synchrotron peak frequency ($\log\nu_p$), spectral curvature (P_1), peak flux ($\nu_p F_{\nu_p}$), and integrated flux (νF_ν) are successfully obtained for 1392 blazars (461 flat spectrum radio quasars-FSRQs, 620 BL Lacs-BLs and 311 blazars of uncertain type-BCUs, 999 sources have known redshifts). Monochromatic luminosity at radio 1.4 GHz, optical R band, X-ray at 1 keV and γ -ray at 1 GeV, peak luminosity, integrated luminosity and effective spectral indexes of radio to optical (α_{RO}), and optical to X-ray (α_{OX}) are calculated. The "Bayesian classification" is employed to $\log\nu_p$ in the rest frame for 999 blazars with available redshift and the results show that 3 components are enough to fit the $\log\nu_p$ distribution, there is no ultra high peaked subclass. Based on the 3 components, the subclasses of blazars using the acronyms of Abdo et al. (2010a) are classified, and some mutual correlations are also studied. Conclusions are finally drawn as follows: (1) SEDs are successfully obtained for 1392 blazars. The fitted peak frequencies are compared with common sources from samples available (Sambruna et al. 1996, Nieppola et al. 2006, 2008, Abdo et al. 2010a). (2) Blazars are classified as low synchrotron peak sources (LSPs) if $\log\nu_p(\text{Hz}) \leq 14.0$, intermediate synchrotron

peak sources (ISPs) if $14.0 < \log \nu_p(\text{Hz}) \leq 15.3$, and high synchrotron peak sources (HSPs) if $\log \nu_p(\text{Hz}) > 15.3$. (3) γ -ray emissions are strongly correlated with radio emissions. γ -ray luminosity is also correlated with synchrotron peak luminosity and integrated luminosity. (4) There is an anti-correlation between peak frequency and peak luminosity within the whole blazar sample. However, there is a marginally positive correlation for HBLs, and no correlations for FSRQs or LBLs. (5) There are anti-correlations between the monochromatic luminosities (γ -ray and radio bands) and the peak frequency within the whole sample and BL Lacs. (6) The optical to X-ray (α_{OX}) and radio to optical (α_{RO}) spectral indexes are strongly anti-correlated with peak frequency ($\log \nu_p$) within the whole sample, but the correlations for subclasses of FSRQs, LBLs, and HBLs are different.

Subject headings: BL Lacertae objects: general, galaxies: active, galaxies: jets, galaxies: nuclei

1. Introduction

The most powerful active galactic nuclei (AGNs) are the sources referred to as blazars, which show rapid variability and high luminosity, high and variable polarization, superluminal motions, core-dominated non-thermal continuum and strong γ -ray emissions, etc. (Abdo et al. 2009a, 2010b,c; Acero et al. 2015; Ackermann et al. 2011a,b, 2015; Aller et al. 2011; Bai, et al. 1998; Bastieri et al. 2011; Chen et al., 2012; Fan & Xie 1996; Fan et al. 2011; Ghisellini et al. 2010; Gu 2014; Gu & Li 2013; Gupta 2011; Gupta et al. 2012; Hu, et al. 2006; Marscher et al. 2011; Nolan et al. 2012; Romero et al. 2002; Urry 2011; Wills et al. 1992; Wu, et al. 2007; Yang et al. 2010a,b, 2012a,b, 2014; You & Cao, 2014). Quite recently, Massaro et al. (2015) published the largest blazar sample (The 5th edition of the Roma-BZCAT, see the BZCAT 5.0 (<http://www.asdc.asi.it/bzcat/>)). Blazars consist of two subclasses, namely BL Lacertae objects (BL Lacs) and flat spectrum radio quasars (FSRQs), both subclasses have the common continuum properties while their emission line features are quite different, namely FSRQs have strong emission lines while BL Lacs have no emission lines or very weak emission lines. The strong radio continuum is believed to be produced via synchrotron process. This synchrotron radiation is reflected in the blazar spectral energy

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distribution (SED) of the $\log(\nu F_\nu)$ vs $\log \nu$ as a bump in radio to X-ray frequencies. Another bump followed is often attributed to the inverse Compton process.

BL Lacertae objects can be classified as radio selected BL Lacs (RBLs) and X-ray selected BL Lacs (XBLs) from surveys. In 1995, Giommi et al. constructed radio to X-ray energy distributions ($\log(\nu F_\nu)$ vs $\log \nu$) of a sample of 121 BL Lacs to investigate the difference between XBLs and RBLs, and found that the synchrotron peak for RBLs locates at the IR/optical band while for XBLs it locates at the UV/X-ray band. BL Lacs were proposed to distinguish by the ratio of f_x/f_r as high-energy cut-off BL Lacs (HBLs) and low-energy cut-off BL Lacs (LBLs) respectively when $f_x/f_r > 10^{-11}$ or $f_x/f_r < 10^{-11}$ (where X-ray fluxes cover $0.3 \sim 3.5$ keV in units of $\text{erg}/\text{cm}^2/\text{s}$ while the radio fluxes are at 1.4 GHz in units of Jy) (Padovani & Giommi 1995). In 1996, with a parabola which was used by Landau et al. (1986) to parameterize the spectral flux distribution in $\log \nu F_\nu - \log \nu$, Sambruna et al. parameterized the power per decade energy distribution by a logarithmic parabola form $\log \nu L_\nu = A(\log \nu)^2 + B \log \nu + C$ using a sample of blazars including complete samples of RBLs and XBLs. They obtained integrated luminosity, peak frequency, and the peak luminosity. The averaged peak frequency is $\langle \log \nu_p \rangle (\text{Hz}) = 15.93 \pm 1.45$ for EMSS XBLs and $\langle \log \nu_p \rangle (\text{Hz}) = 13.91 \pm 0.09$ for 1 Jy RBLs. In 1996, Padovani & Giommi classified BL Lacs as HBLs ($\log \nu_p (\text{Hz}) > 15$) and LBLs ($\log \nu_p (\text{Hz}) < 15$).

Later, Fossati et al. (1998) computed the average SED from radio to γ -rays using three complete samples of blazars (FSRQs, RBLs, and XBLs), and found that there is a clear continuity for more luminous blazars to have lower first peak frequency and for less luminous blazars to have higher first peak frequency. However observations show high luminosity HBLs (Giommi et al. 2005) and low power LBLs (Padovani et al. 2003; Caccianiga & Marchã, 2004).

In 2002, we calculated SEDs using a sample of γ -ray blazars with available radio Doppler factors and estimated the Doppler factors at γ -ray band (Zhang, et al. 2002). Nieppola et al. (2006) calculated SEDs in the form of $\log \nu F_\nu - \log \nu$ for 308 blazars, classified BL lacertae objects into LBLs, IBLs, and HBLs, and set the boundaries as $\log \nu_p < 14.5$ for LBLs, $14.5 < \log \nu_p < 16.5$ for IBLs, and $\log \nu_p > 16.5$ for HBLs. They also calculated peak frequencies for 135 AGNs by fitting $\log(\nu F_\nu) = A(\log \nu)^2 + B(\log \nu) + C$ in 2008 (Nieppola, et al. 2008). Abdo et al. (2010a) calculated SEDs for 48 Fermi blazars, and proposed an empirical parametrization for synchrotron peak frequency based on effective spectral indexes of α_{ro} (radio-optical) and α_{ox} (optical-X-rays) using the available fitting peak frequencies and the effective spectral indexes. They also extended the definition to all types of non-thermal dominated AGNs using new acronyms: low synchrotron peaked blazars (LSP, $\log \nu_p < 14$ Hz), intermediate synchrotron peaked blazars (ISP, $14 \text{ Hz} < \log \nu_p < 15 \text{ Hz}$), and high

synchrotron peaked blazars (HSP, $\log \nu_p > 15$ Hz). From the above work, it is noted that the criteria of the synchrotron peak frequency boundaries used to assign a type of HSP, ISP and HSP, is not uniform.

For the 2nd bump in the plots of $\log \nu F_\nu - \log \nu$ of blazars, the peak frequencies are in the region of GeV to TeV bands. Blazars are strong γ -ray emitters. EGRET/GRO has detected about 60 high confidence γ -ray bright blazars (Hartman et al. 1999). The second generation of γ -ray detector, Fermi/LAT, has detected about 1800 blazars and unidentified blazars (see Abdo et al 2010c, Ackermann, et al. 2011a, Nolan et al. 2012, Acero et al. 2015; Ackermann, et al. 2015).

From the 3FGL (Acero et al. 2015), a sample of Fermi detected blazars (classified as FSRQs, BLs and blazars of uncertain type-BCUs) is now available. In this paper, we have compiled multiwavelength data from NED for a sample of 1425 Fermi blazars, calculate their SEDs and discuss the relationships between some relevant parameters. In Sect. 2, we present our Fermi detected blazar sample, calculate their SEDs, discuss their classification, and analyze the correlations. In Sect. 3, correlation analysis results are given. In Sect. 4, some discussions and in Sect. 5, some conclusions are both presented.

The spectral index α is defined as $F_\nu \propto \nu^{-\alpha}$, and all luminosities νL_ν are denoted simply by L_ν .

2. Sample and Results

2.1. Sample and SED Results

In this paper, a sample of 1425 Fermi detected blazars (FSRQs, BLs, and blazars of uncertain type-BCUs) are from the 3FGL (Acero et al. 2015). The multi-frequency data (radio to X-ray bands) collected from NED are used to calculate their SEDs. In doing so, the infrared and optical data are corrected using A_λ in NED for reddening/galactic absorption. Then the corrected infrared and optical magnitudes are transferred into flux densities, and afterwards, all the flux densities are K-corrected by $f_\nu = f_\nu^{\text{ob}}(1+z)^{(\alpha_\nu-1)}$, where α_ν ($\alpha_\nu = \Gamma_\nu - 1$, Γ is the photon spectral index for X-ray and γ -ray bands) is the spectral index at frequency ν , and z is the redshift. If the redshift and spectral index are not available, then we can adopt averaged values of the sub-sample to replace them. For redshift, the following averaged values from our sample are obtained: $\langle z \rangle = 0.568 \pm 0.505$ for BLs, and $\langle z \rangle = 0.524 \pm 0.628$ for BCUs. For spectral indexes, we adopt $\alpha_R = 0$ for radio band (Donato et al. 2001, Abdo et al. 2010a), while for optical band, $\alpha = 0.5$ for BLs and $\alpha = 1$ for the rest of the sources as similar to what have been done by Donato et al. (2001):

$\langle\alpha_X\rangle = 1.30$ for BLs, $\langle\alpha_X\rangle = 0.78$ for FSRQs, and $\langle\alpha_X\rangle = 1.05$ for BCUs.

The spectral energy distributions (SEDs) are calculated by fitting following relation with a least square fitting method,

$$\log(\nu F_\nu) = P_1(\log\nu - P_2)^2 + P_3,$$

where P_1 , P_2 and P_3 are constants with P_1 being the spectral curvature, P_2 the peak frequency ($\log \nu_p$) and P_3 peak flux ($\log(\nu_p F_{\nu_p})$). The SED fitting figures of 1425 sources are shown in Fig 1 and Appendix. From the fitting results, it can be seen that SEDs have been successfully fitted only for 1392 sources with resulting P_1 , P_2 , and P_3 . The fitting results (peak frequency, spectral curvature), peak luminosity, integrated luminosity, monochromatic luminosity, and effective spectral indexes are listed in Table 1, where

Col. (1) gives the 3FGL name;

Col. (2) redshift from NED database at IPAC;

Col. (3) gives the SED classification by our method. HF stands for HSP FSRQ, IF for ISP FSRQ, LF for LSP FSRQ, HBL for HSP BL Lac, IBL for ISP BL Lac, LBL for LSP BL Lac, HU for HSP U-Blazar, IU for ISP U-Blazar, and LU for LSP U-Blazar;

Col. (4) radio luminosity $\log L_R$ and its uncertainty at 1.4 GHz ($\text{erg} \cdot \text{s}^{-1}$);

Col. (5) optical R luminosity $\log L_O$ and its uncertainty ($\text{erg} \cdot \text{s}^{-1}$);

Col. (6) X-ray luminosity $\log L_X$ and its uncertainty at 1 keV ($\text{erg} \cdot \text{s}^{-1}$);

Col. (7) γ -ray luminosity $\log L_\gamma$ and its uncertainty at 1 GeV ($\text{erg} \cdot \text{s}^{-1}$);

Col. (8) and (9) give the effective spectral indices and the corresponding uncertainties of radio to optical (α_{RO}) and optical to X-ray (α_{OX}). They are calculated by a formula (Ledden & O’Dell 1985), $\alpha_{12} = -\log(f_1/f_2)/\log(\nu_1/\nu_2)$, where f_1 and f_2 are the flux densities in frequencies ν_1 and ν_2 , respectively, and $f(\nu) \propto \nu^{-\alpha}$. In this paper, $\nu_R = 1.4$ GHz, $\nu_O = 4.68 \times 10^{14}$ Hz and $\nu_X = 2.416 \times 10^{17}$ Hz are adopted.

Col. (10) spectral curvature (P_1) and its uncertainty;

Col. (11) synchrotron peak frequency ($\log \nu_p$, Hz) and its uncertainty;

Col. (12) peak luminosity ($\log L_p$, $\text{erg} \cdot \text{s}^{-1}$) and its uncertainty;

Col. (13) integrated (bolometric) luminosity ($\log L_{\text{bol}}$, $\text{erg} \cdot \text{s}^{-1}$) and its uncertainty.

Table 1. Sample for blazars

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
J0001.2-0748		IB	42.36/0.01	45.39/0.02		45.23/0.06	0.45/0.01		-0.12/0.01	14.37/0.12	45.35/0.03	45.71/0.05
J0001.4+2120	1.106	HF	42.97/0.01			45.70/0.11			-0.05/0.00	16.79/0.28	45.70/0.03	46.32/0.04
J0003.2-5246		HU			45.13/0.07	44.56/0.11			-0.05/0.01	17.89/0.81	45.15/0.14	45.76/0.14
J0003.8-1151	1.310	LU	43.44/0.01	45.54/0.04		45.59/0.12	0.62/0.01		-0.12/0.01	13.06/0.14	45.57/0.11	46.01/0.15
J0004.7-4740	0.880	IF		46.38/0.04		45.86/0.05		1.52/0.04	-0.12/0.01	14.14/0.09	46.20/0.06	46.59/0.09
J0006.4+3825	0.229	IF	41.98/0.01	44.53/0.04		44.41/0.06	0.54/0.01	1.40/0.04	-0.11/0.01	14.03/0.12	44.65/0.10	45.08/0.14
J0008.0+4713	0.280	IB	41.18/0.01			44.87/0.03			-0.12/0.00	14.52/0.07	44.46/0.04	44.83/0.06
J0008.6-2340	0.147	IB	40.38/0.01			43.08/0.12			-0.10/0.01	15.09/0.19	44.01/0.05	44.40/0.07
J0009.1+0630		LB	42.43/0.02	44.97/0.04		45.14/0.07	0.54/0.01		-0.09/0.03	13.69/0.51	44.42/0.17	44.93/0.24
J0009.6-3211	0.026	LU	39.87/0.01	44.48/0.04		41.91/0.10	0.17/0.01		-0.16/0.02	13.93/0.24	43.90/0.17	44.14/0.23
J0013.2-3954		LB	42.74/0.02	45.04/0.04		45.21/0.06	0.58/0.01	2.09/0.06	-0.19/0.01	12.95/0.14	45.53/0.09	45.79/0.13
J0013.9-1853	0.095	IB	39.90/0.02			42.88/0.11			-0.13/0.01	14.96/0.15	44.37/0.07	44.65/0.09
J0014.0-5025		HB				44.64/0.10			-0.05/0.00	18.55/0.33	45.38/0.06	45.94/0.07
J0015.7+5552		HU	41.90/0.01			44.93/0.09			-0.10/0.00	15.82/0.10	45.95/0.03	46.32/0.04
J0016.3-0013	1.577	IF	43.96/0.01	45.49/0.04		46.67/0.06	0.72/0.01	1.17/0.04	-0.09/0.01	13.58/0.10	45.58/0.04	46.12/0.06
J0017.2-0643		IU	41.94/0.01	44.82/0.04		44.87/0.09	0.48/0.01		-0.10/0.01	14.64/0.37	44.79/0.06	45.21/0.09
J0017.6-0512	0.227	IF	41.46/0.02	44.30/0.04		44.48/0.05	0.49/0.01	1.19/0.05	-0.11/0.01	14.48/0.13	44.63/0.15	45.02/0.21
J0018.4+2947	0.100	HB	40.00/0.01			42.84/0.13			-0.06/0.01	16.60/0.68	43.44/0.12	43.96/0.16
J0018.9-8152		LU				45.16/0.06			-0.05/0.01	17.16/0.46	45.33/0.07	45.90/0.07
J0019.1-5645		LU				44.88/0.09			-0.13/0.01	13.35/0.10	44.04/0.06	44.41/0.10
J0019.4+2021		LB	43.04/0.01	44.42/0.04		44.91/0.10	0.75/0.01		-0.17/0.01	12.84/0.09	45.19/0.06	45.50/0.10
J0021.6-2553		LB	41.88/0.01	45.06/0.14		45.14/0.06	0.43/0.03		-0.17/0.02	13.77/0.17	45.43/0.08	45.67/0.12
J0021.6-6835		IU				44.87/0.12			-0.09/0.01	14.90/0.13	45.47/0.04	45.92/0.05
J0022.1-1855		IB	41.39/0.02	45.60/0.02		45.13/0.05	0.24/0.01	1.38/0.05	-0.13/0.01	14.69/0.12	45.46/0.03	45.76/0.05
J0022.1-5141		HB				45.14/0.05			-0.09/0.00	15.86/0.16	45.69/0.03	46.07/0.05
J0022.5+0608		LB	42.57/0.01	44.64/0.04		45.68/0.03	0.63/0.01		-0.12/0.01	13.58/0.12	45.00/0.06	45.40/0.09
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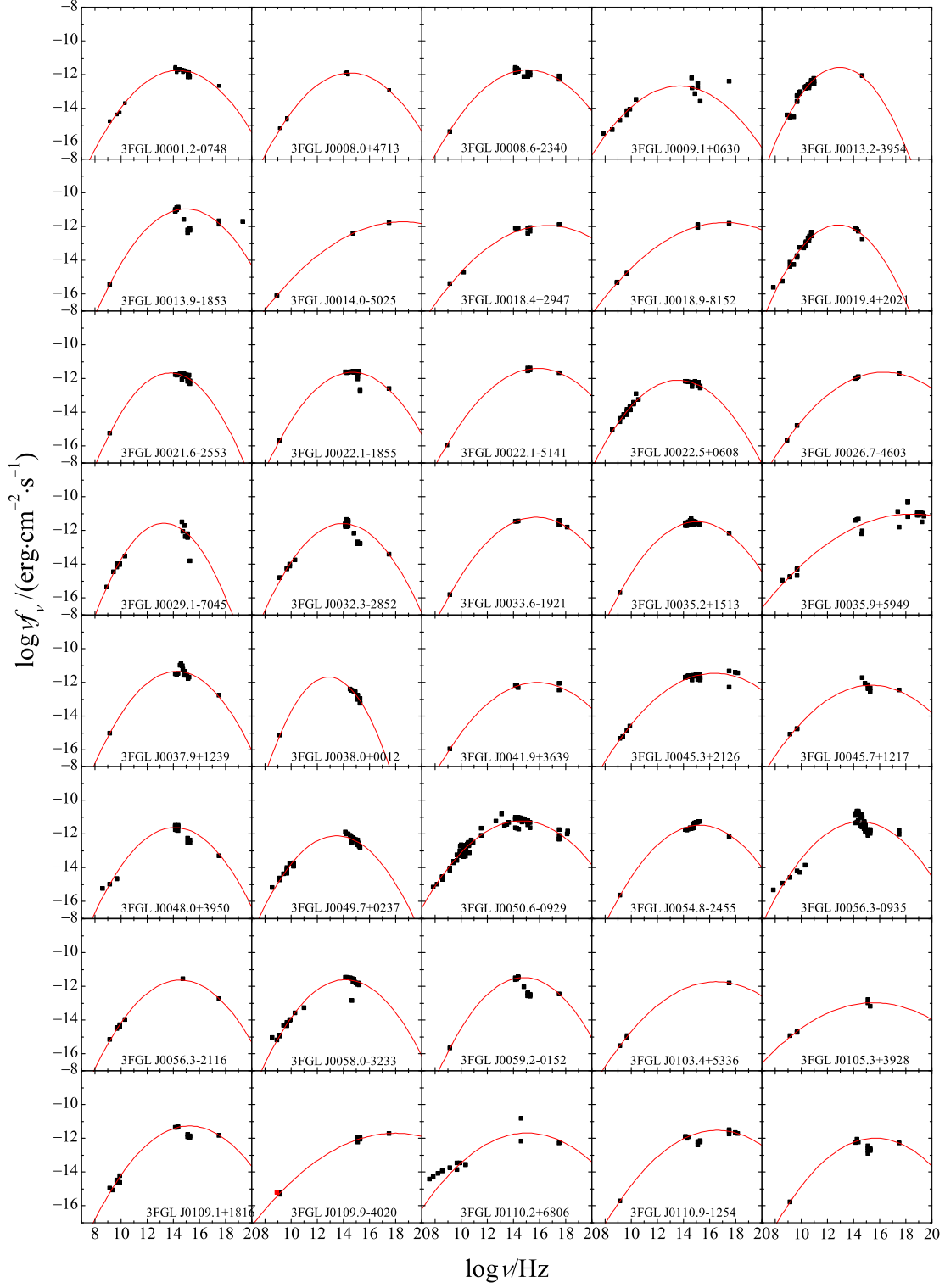


Fig. 1.— SED Figures (see Appendix for all the SED figures).

2.2. Classification of Blazars

In Table 1, the peak frequency, classification, luminosities, spectral indexes are listed for 1392 blazars, where 461 are FSRQs, 620 are BLs and 311 are BCUs. Amongst the 1392 blazars, 999 objects have available redshift. For the whole 1392 sources, a distribution for logarithm of fitted peak frequencies is shown in Fig. 2a. From the distribution, it can be seen that there are 4 peaks locating at about $\log \nu_p(\text{Hz}) = 13.3$, $\log \nu_p(\text{Hz}) = 14.3$, $\log \nu_p(\text{Hz}) = 15.9$, and $\log \nu_p(\text{Hz}) = 18.5$, and 3 concave points at about $\log \nu_p(\text{Hz}) = 13.9$, $\log \nu_p(\text{Hz}) = 15.5$, and $\log \nu_p(\text{Hz}) = 18.3$.

For the 999 blazars (463 BLs, 461 FSRQs, and 75 BCUs) with available redshifts, a distribution for the logarithm of fitted peak frequencies is shown in Fig. 2c. From the distribution, it can be seen that there are 4 peaks locating at about $\log \nu_p(\text{Hz}) = 13.3$, $\log \nu_p(\text{Hz}) = 14.3$, $\log \nu_p(\text{Hz}) = 15.7$, and $\log \nu_p(\text{Hz}) = 18.5$, and 4 concave points at about $\log \nu_p(\text{Hz}) = 13.7$, $\log \nu_p(\text{Hz}) = 15.5$, $\log \nu_p(\text{Hz}) = 18.0$, and $\log \nu_p(\text{Hz}) = 18.3$.

When the peak frequencies are corrected to the rest frame, we have $\log \nu_p^{\text{rest}} = \log \nu_p + \log(1+z)$. A distribution for the logarithm of corrected peak frequencies is shown in Fig. 2d. From the distribution, it can be seen that there are many peaks locating at about $\log \nu_p(\text{Hz}) = 13.5 - 13.9$, $\log \nu_p(\text{Hz}) = 14.3$, $\log \nu_p(\text{Hz}) = 14.9$, $\log \nu_p(\text{Hz}) = 15.7$, $\log \nu_p(\text{Hz}) = 16.7$, $\log \nu_p(\text{Hz}) = 18.5$, and $\log \nu_p(\text{Hz}) = 18.9$, and many concave points at about $\log \nu_p(\text{Hz}) = 14.1$, $\log \nu_p(\text{Hz}) = 14.7$, $\log \nu_p(\text{Hz}) = 15.5$, $\log \nu_p(\text{Hz}) = 15.9$, $\log \nu_p(\text{Hz}) = 16.5$, $\log \nu_p(\text{Hz}) = 17.9$, $\log \nu_p(\text{Hz}) = 18.3$, $\log \nu_p(\text{Hz}) = 18.7$, and $\log \nu_p(\text{Hz}) = 18.9$.

It is hard from the distributions to set boundary by eyes for different subclasses. To classify different subclass, a normal mixture model of Gaussian components is applied to the peak frequencies to confidently identify the peaks present. Then the existence of 3 vs. 2 or 4 components can be quantitatively established using maximum likelihood estimation (via the expectation-maximization (EM) Algorithm) and Bayesian Information Criterion (BIC) for model selection. The CRAN package ‘mclust’ (Chris et al. 2012, Chris & Adrian 2002) within the public domain R statistical software environment is used for the analysis. ‘mclust’ provides iterative EM methods for maximum likelihood clustering with parameterized Gaussian mixture models. First, density estimation via Gaussian finite mixture modeling was conducted. The BIC values for our 999 peak frequencies in the rest frame are shown in Fig 3d. There are 2 kinds of models fitted by ‘mclust’, one is the V (univariate, unequal variance) models, the other is the E (univariate, equal variance) models. An astro-oriented tutorial could be found in Sec. 9.92 of Modern Statistical Methods for Astronomy with R Applications (Feigelson & Bau, 2012). Our analysis indicates that the better one is the V model with 3 components: For the 1st component, it has a mean value of $\log \nu_p(\text{Hz}) = 13.56$

with a variance of 0.129 and a clustering probability of 0.32; the 2nd one has a mean of $\log \nu_p(\text{Hz}) = 14.49$ with a variance of 0.294 and a clustering probability of 0.38; and the 3rd one has $\log \nu_p(\text{Hz}) = 15.46$ with a variance of 1.701 and a clustering probability of 0.30. The density function with the 3 components is plotted also in Fig 2d. As can be seen in Fig 2d, the crossing points of two adjacent Gaussian curves are at $\log \nu_p(\text{Hz}) = 13.98$ and $\log \nu_p(\text{Hz}) = 15.30$. If we choose the frequencies at the jointing points as the boundaries for classification and follow the acronyms of LSP, ISP, and HSP (Abdo et al. 2010a), the following classifications can be set:

$$\log \nu_p(\text{Hz}) \leq 14.0 \text{ for LSPs,}$$

$$14.0 < \log \nu_p(\text{Hz}) \leq 15.3 \text{ for ISPs, and}$$

$$\log \nu_p(\text{Hz}) > 15.3 \text{ for HSPs.}$$

Based on the classifications, we obtain: 38.6% of the 999 blazar sample are LSPs, 42.9% are ISPs, and 18.4% are HSPs.

For the 999 peak frequencies at observer's frame, the same process is performed, the following results are obtained: the 1st component has a mean value of $\log \nu_p(\text{Hz}) = 13.19$ with a variance of 0.090 and a clustering probability of 0.28; the 2nd one has a mean of $\log \nu_p(\text{Hz}) = 14.20$ with a variance of 0.310 and a clustering probability of 0.40; the 3rd one has $\log \nu_p(\text{Hz}) = 15.24$ with a variance of 1.724 and a clustering probability of 0.32. The BIC values and the corresponding density function are shown in Fig 3c and Fig 2c respectively.

For the 1392 peak frequencies at observer's frame, we have: the 1st component has a mean value of $\log \nu_p(\text{Hz}) = 13.19$ with a variance of 0.091 and a clustering probability of 0.22; the 2nd one has a mean of $\log \nu_p(\text{Hz}) = 14.23$ with a variance of 0.445 and a clustering probability of 0.43; and the 3rd one has $\log \nu_p(\text{Hz}) = 15.45$ with a variance of 1.861 and a clustering probability of 0.36. The BIC values and the corresponding density function are shown in Fig 3a and Fig 2a respectively.

For the 1392 objects, we adopt the averaged redshift values for the unknown sources ($\langle z \rangle = 0.568$ for BLs and $\langle z \rangle = 0.524$ for BCUs), then we obtain: the 1st component has a mean value of $\log \nu_p(\text{Hz}) = 13.59$ with a variance of 0.151 and a clustering probability of 0.30; the 2nd one has a mean of $\log \nu_p(\text{Hz}) = 14.61$ with a variance of 0.314 and a clustering probability of 0.33; and the 3rd one has $\log \nu_p(\text{Hz}) = 15.62$ with a variance of 1.824 and a clustering probability of 0.37. The BIC values and the corresponding density function are shown in Fig 3b and Fig 2b respectively.

The classifications for 1392 blazars are shown in Col. (3) in Table 1, where 34.77% of the whole sample are LSPs, 40.09% are ISPs, and 25.14% are HSPs. See Table 2 for details.

Table 2. The statistics results of classification.

	N for FSRQs	N for BLs	N for BCUs	N for Sum	percentage
	FSRQs	BLs	BCUs	Sum	%
HSP	9	235	106	350	25.14
ISP	180	271	107	558	40.09
LSP	272	114	98	484	34.77
Sum	461	620	311	1392	1
percentage	33.12	45.54	22.34	1	—

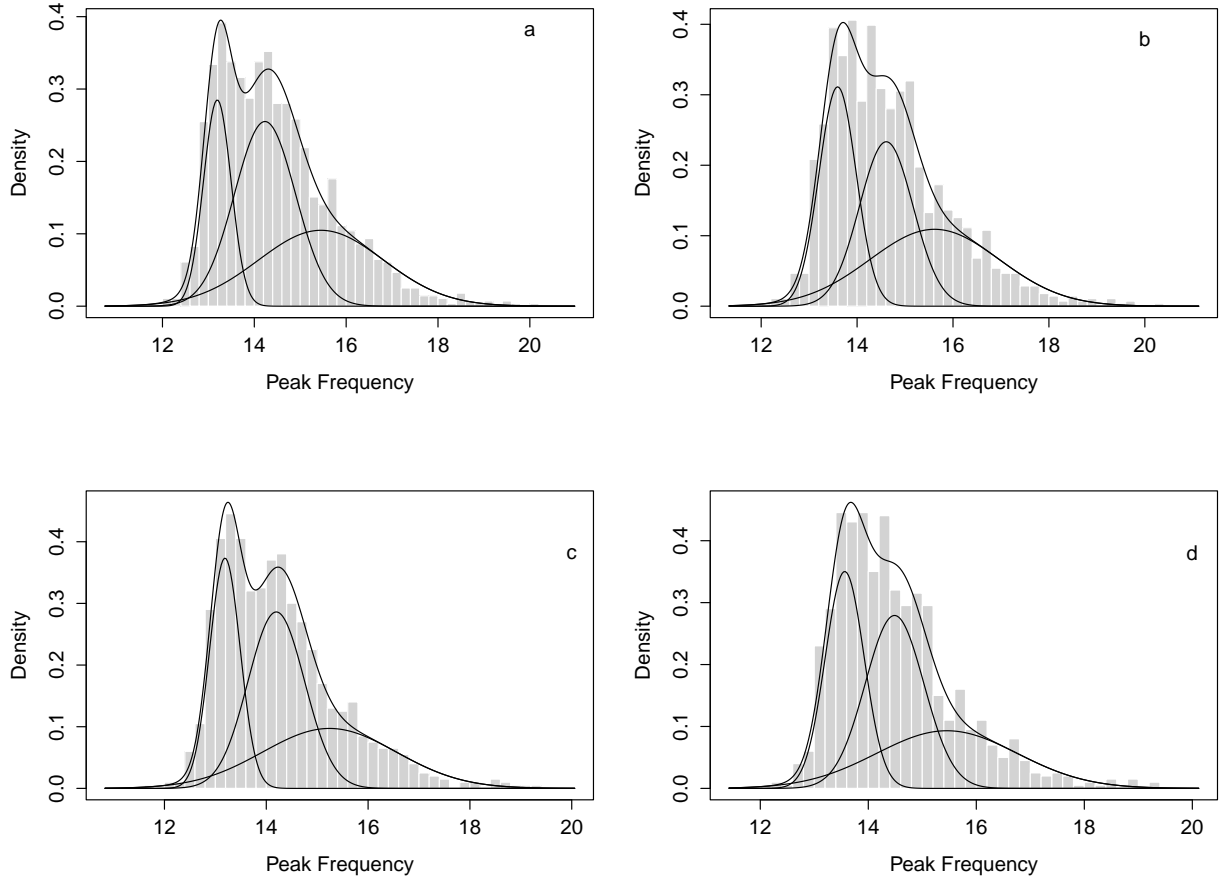


Fig. 2.— Distribution and density of the peak frequencies with 3 Gaussian components. Fig *a* is for the peak frequencies in the observer frame of the whole 1392 blazars; Fig *b* is for the peak frequencies in the rest frame of the whole 1392 blazars, the averaged values of redshift are used for the sources with unknown redshift; Fig *c* is for the peak frequencies in the observer frame of the 999 blazars with available redshift; Fig *d* is for the peak frequencies in the rest frame of the 999 blazars with available redshift.

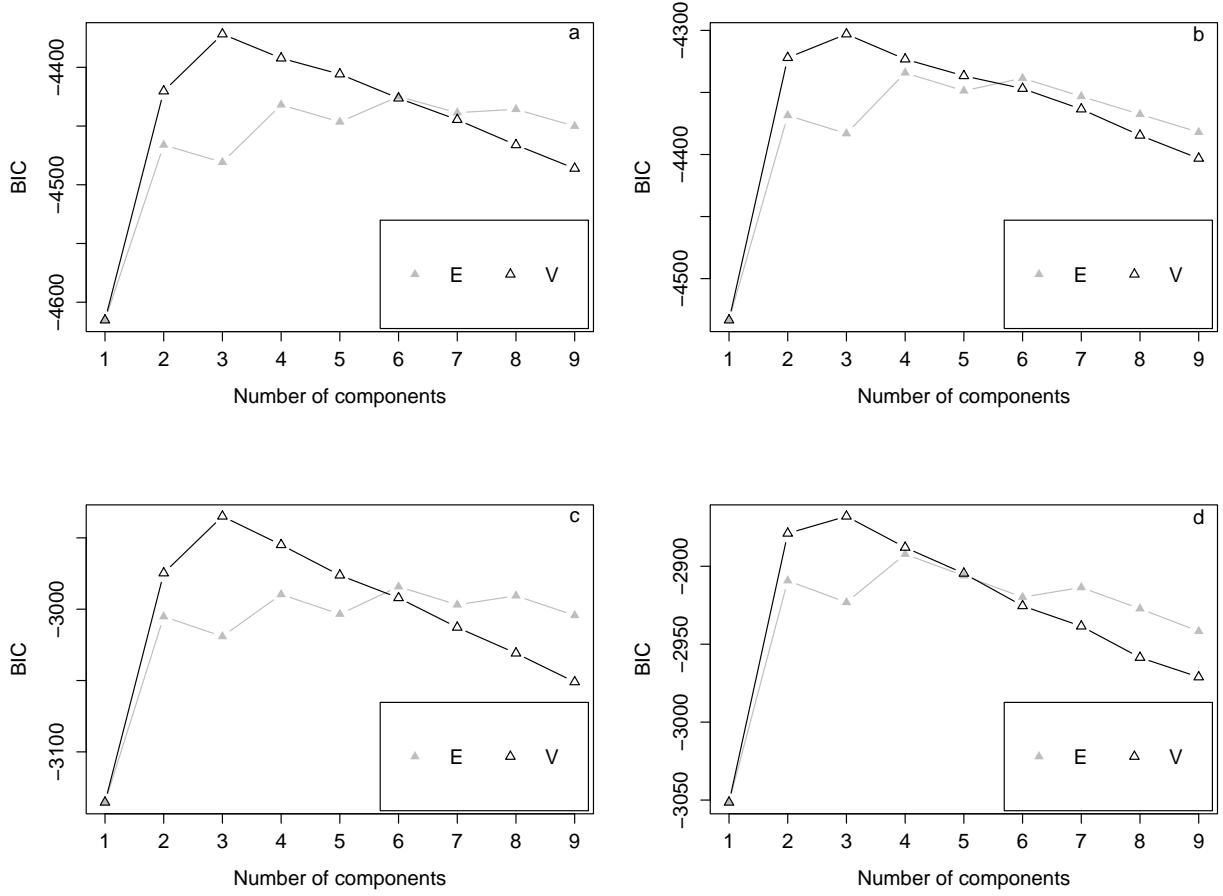


Fig. 3.— BIC values from ‘mclust’ for the models E and V with up to 9 clusters applied to the data of the peak frequencies. Fig *a* is for the peak frequencies in the observer frame of the whole 1392 blazars; Fig *b* is for the peak frequencies in the rest frame of the whole 1392 blazars, the averaged values of redshift are used for the sources with unknown redshift; Fig *c* is for the peak frequencies in the observer frame of the 999 blazars with available redshift; Fig *d* is for the peak frequencies in the rest frame of the 999 blazars with available redshift.

3. Correlations

3.1. Correlations between γ -ray Luminosity and Other Luminosities

In Table 1, monochromatic luminosities at 1.4 GHz ($\log L_R$), optical R band ($\log L_O$), X-ray ($\log L_X$) at 1 KeV, and γ -ray ($\log L_\gamma$) at 1 GeV are given. Here, the luminosity is calculated by a formulae $L = 4\pi d_L^2 \nu f_\nu$, where, $d_L (= (1+z) \cdot \frac{c}{H_0} \cdot \int_1^{1+z} \frac{1}{\sqrt{\Omega_M x^3 + 1 - \Omega_M}} dx)$ (Pedro & Priyamvada 2007) is luminosity distance and f_ν is the K-corrected flux density at the corresponding frequency ν .

Following our pervious papers (Fan et al. 2013, 2014; Lin & Fan 2016; Nie et al. 2014; Yang, et al. 2002b, 2014), the calculation of γ -ray luminosity is further conducted. The luminosity ($\log L_p$) at synchrotron peak frequency and integrated luminosity ($\log L_{bol}$) are then obtained by $L = 4\pi d_L^2 (\nu f_\nu)$, where (νf_ν) is from SED fittings.

The correlations between γ -ray luminosity and lower energy bands at radio, optical and X-ray are shown in Fig. 4, and the correlations between γ -ray luminosity and the peak and integrated luminosities are shown in Fig. 5. The linear regression fitting results are shown in Table 3, where the linear regression fitting relation is expressed as $y = (a \pm \Delta a) + (b \pm \Delta b)x$, r is a correlation coefficient, N is the number of sources in the corresponding sample (sub-sample), p is a chance probability, $r_{LL,z}$ and $p_{LL,z}$ are correlation coefficient and the corresponding chance probability after removing redshift effect respectively.

3.2. Correlations between Peak Frequency and Other Parameters

Now, we investigate correlations between synchrotron peak frequency ($\log \nu_p$) and other parameters including monochromatic luminosity (γ -ray, X-ray, optical, and radio band), integrated luminosity, peak luminosity, spectral curvature (P_1), effective spectral indexes. The spectral curvature (P_1) is from SED fitting, and the effective spectral indexes are calculated as $\alpha_{ij} = -\frac{\log(f_i/f_j)}{\log(\nu_i/\nu_j)}$ (Ledden & O'Dell 1985).

The relations between peak frequency ($\log \nu_p$) and monochromatic luminosities at 1.4 GHz ($\log L_R$), optical R band ($\log L_O$), X-ray ($\log L_X$) at 1 KeV, and γ -ray ($\log L_\gamma$) are shown in Fig. 6. The relations between the peak frequency ($\log \nu_p$) and the peak luminosity ($\log L_{\nu_p}$)/the integrated luminosity ($\log L_{bol}$) are shown in Fig. 7. The relations between the spectral curvature (P_1) and peak frequency ($\log \nu_p$) and those between the spectral curvature (P_1) and the integrated luminosity ($\log L_{bol}$) are shown in Fig. 8. The relations between peak frequency and effective spectral indexes (α_{RO} , α_{OX}) are shown in Fig. 9. The corresponding linear regression analysis results are listed in Table 4.

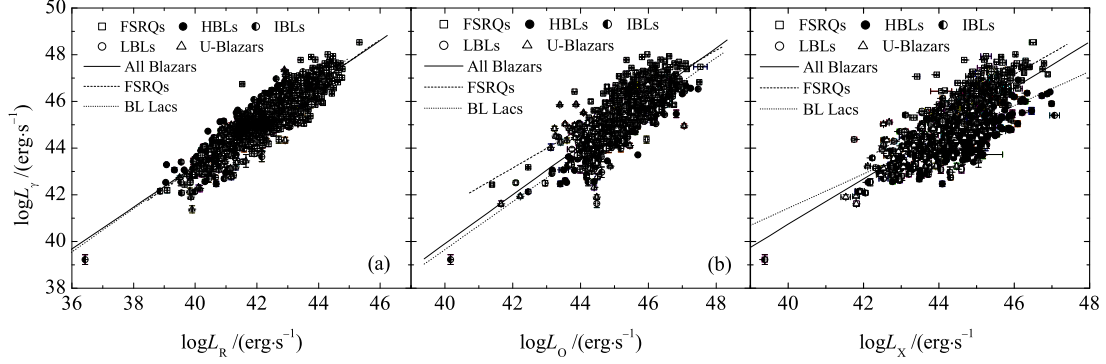


Fig. 4.— The correlations between γ -ray luminosity ($\log L_\gamma$ at 1 GeV) and (a) radio luminosity ($\log L_R$ at 1.4 GHz), (b) optical luminosity ($\log L_O$ at R band), (c) X-ray luminosity ($\log L_X$ at 1 KeV).

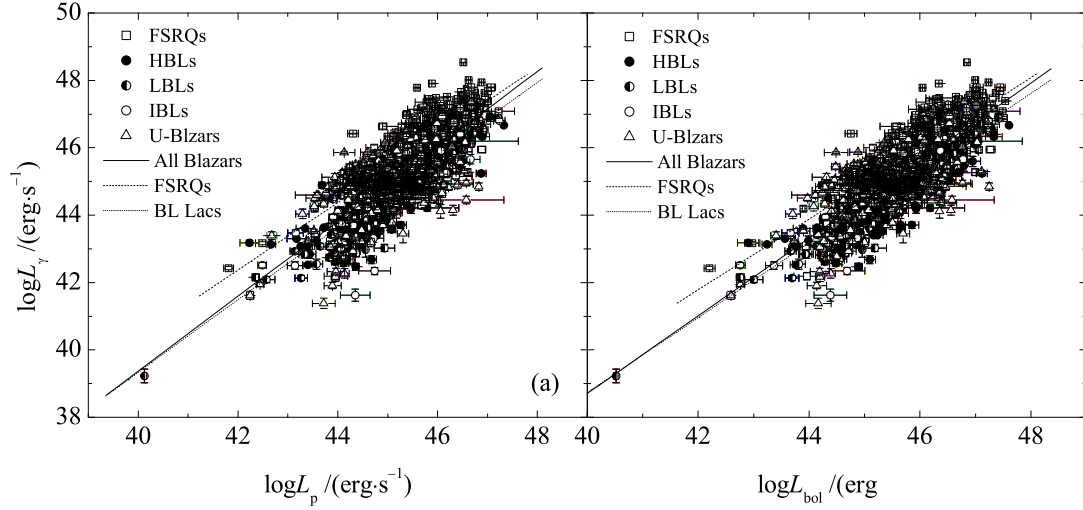


Fig. 5.— The correlations between γ -ray luminosity ($\log L_\gamma$ at 1 GeV) and (a) peak luminosity ($\log L_p$), (b) integrated luminosity ($\log L_{\text{bol}}$).

Table 3. The correlations between γ -ray luminosity and other luminosities.

y vs x	Sample	$a \pm \Delta a$	$b \pm \Delta b$	r	N	p	$r_{LL,z}$	$p_{LL,z}$
$\log L_\gamma$ vs $\log L_R$	All Blazars	7.53 ± 0.56	0.89 ± 0.01	0.90	1148	$< 10^{-4}$	0.554	$< 10^{-4}$
	FSRQs	6.70 ± 1.42	0.91 ± 0.03	0.81	415	$< 10^{-4}$	0.420	$< 10^{-4}$
	BL Lacs	6.34 ± 0.90	0.92 ± 0.02	0.88	536	$< 10^{-4}$	0.613	$< 10^{-4}$
	HBLs	3.16 ± 1.63	1.00 ± 0.04	0.88	198	$< 10^{-4}$	0.535	$< 10^{-4}$
	IBLs	4.08 ± 1.29	0.98 ± 0.03	0.90	241	$< 10^{-4}$	0.628	$< 10^{-4}$
	LBLs	6.49 ± 2.19	0.91 ± 0.05	0.88	97	$< 10^{-4}$	0.536	$< 10^{-4}$
$\log L_\gamma$ vs $\log L_O$	All Blazars	-1.98 ± 1.28	1.05 ± 0.03	0.78	867	$< 10^{-4}$	0.257	$< 10^{-4}$
	FSRQs	7.84 ± 2.10	0.84 ± 0.05	0.69	368	$< 10^{-4}$	0.325	$< 10^{-4}$
	BL Lacs	-1.42 ± 1.37	1.03 ± 0.03	0.86	423	$< 10^{-4}$	0.479	$< 10^{-4}$
	HBLs	-0.04 ± 1.85	0.99 ± 0.04	0.90	137	$< 10^{-4}$	0.663	$< 10^{-4}$
	IBLs	-2.40 ± 1.89	1.05 ± 0.04	0.88	185	$< 10^{-4}$	0.518	$< 10^{-4}$
	LBLs	-4.95 ± 3.70	1.11 ± 0.08	0.81	101	$< 10^{-4}$	0.277	0.0150
$\log L_\gamma$ vs $\log L_X$	All Blazars	1.70 ± 1.54	0.98 ± 0.03	0.73	713	$< 10^{-4}$	-0.134	0.0008
	FSRQs	5.10 ± 2.52	0.91 ± 0.06	0.71	269	$< 10^{-4}$	0.254	$< 10^{-4}$
	BL Lacs	12.18 ± 1.76	0.73 ± 0.04	0.68	391	$< 10^{-4}$	-0.082	0.1382
	HBLs	6.87 ± 1.90	0.84 ± 0.04	0.83	180	$< 10^{-4}$	0.265	0.0016
	IBLs	-1.31 ± 2.49	1.05 ± 0.06	0.81	181	$< 10^{-4}$	0.202	0.0105
	LBLs	4.85 ± 5.54	0.93 ± 0.13	0.82	30	$< 10^{-4}$	0.105	0.5302
$\log L_\gamma$ vs $\log L_p$	All Blazars	-5.09 ± 0.98	1.11 ± 0.02	0.81	1392	$< 10^{-4}$	0.112	0.0004
	FSRQs	0.30 ± 1.80	1.00 ± 0.04	0.77	461	$< 10^{-4}$	0.372	$< 10^{-4}$
	BL Lacs	-3.72 ± 1.20	1.08 ± 0.03	0.85	620	$< 10^{-4}$	0.386	$< 10^{-4}$
	HBLs	1.78 ± 1.90	0.95 ± 0.04	0.83	235	$< 10^{-4}$	0.380	$< 10^{-4}$
	IBLs	-7.62 ± 1.51	1.16 ± 0.03	0.90	271	$< 10^{-4}$	0.516	$< 10^{-4}$
	LBLs	-3.04 ± 3.49	1.06 ± 0.08	0.80	114	$< 10^{-4}$	0.170	0.1154
$\log L_\gamma$ vs $\log L_{\text{bol}}$	All Blazars	-7.35 ± 0.96	1.15 ± 0.02	0.83	1392	$< 10^{-4}$	0.139	$< 10^{-4}$
	FSRQs	-2.26 ± 1.80	1.05 ± 0.04	0.78	461	$< 10^{-4}$	0.376	$< 10^{-4}$
	BL Lacs	-5.66 ± 1.18	1.11 ± 0.03	0.86	620	$< 10^{-4}$	0.416	$< 10^{-4}$
	HBLs	-0.06 ± 1.91	0.98 ± 0.04	0.84	235	$< 10^{-4}$	0.401	$< 10^{-4}$
	IBLs	-9.88 ± 1.40	1.20 ± 0.03	0.92	271	$< 10^{-4}$	0.593	$< 10^{-4}$
	LBLs	-8.56 ± 3.03	1.18 ± 0.07	0.86	114	$< 10^{-4}$	0.317	0.0030

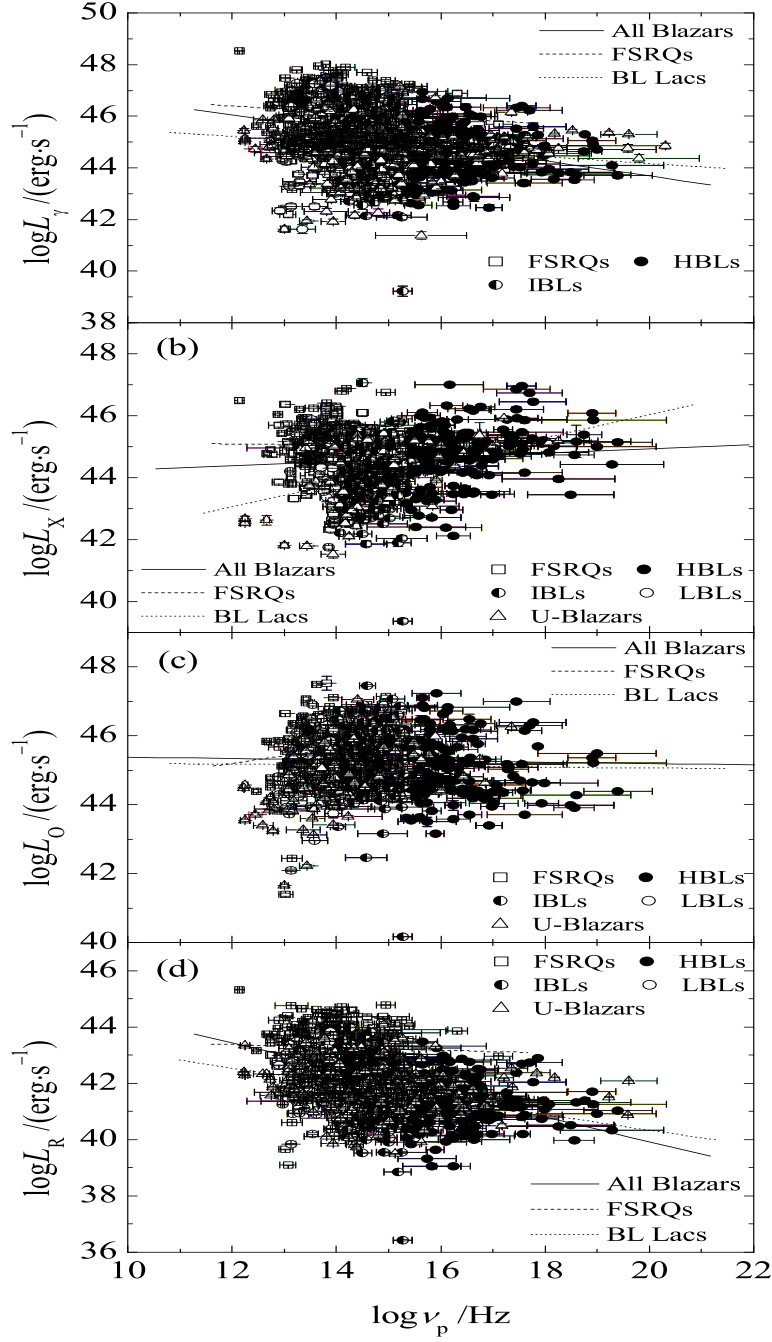


Fig. 6.— The correlation between monochromatic luminosity and peak frequency at rest frame. (a) γ -ray luminosity (1 GeV) and peak frequency, (b) X-ray luminosity (1 KeV) and peak frequency, (c) optical luminosity and peak frequency, and (d) radio luminosity and peak frequency.

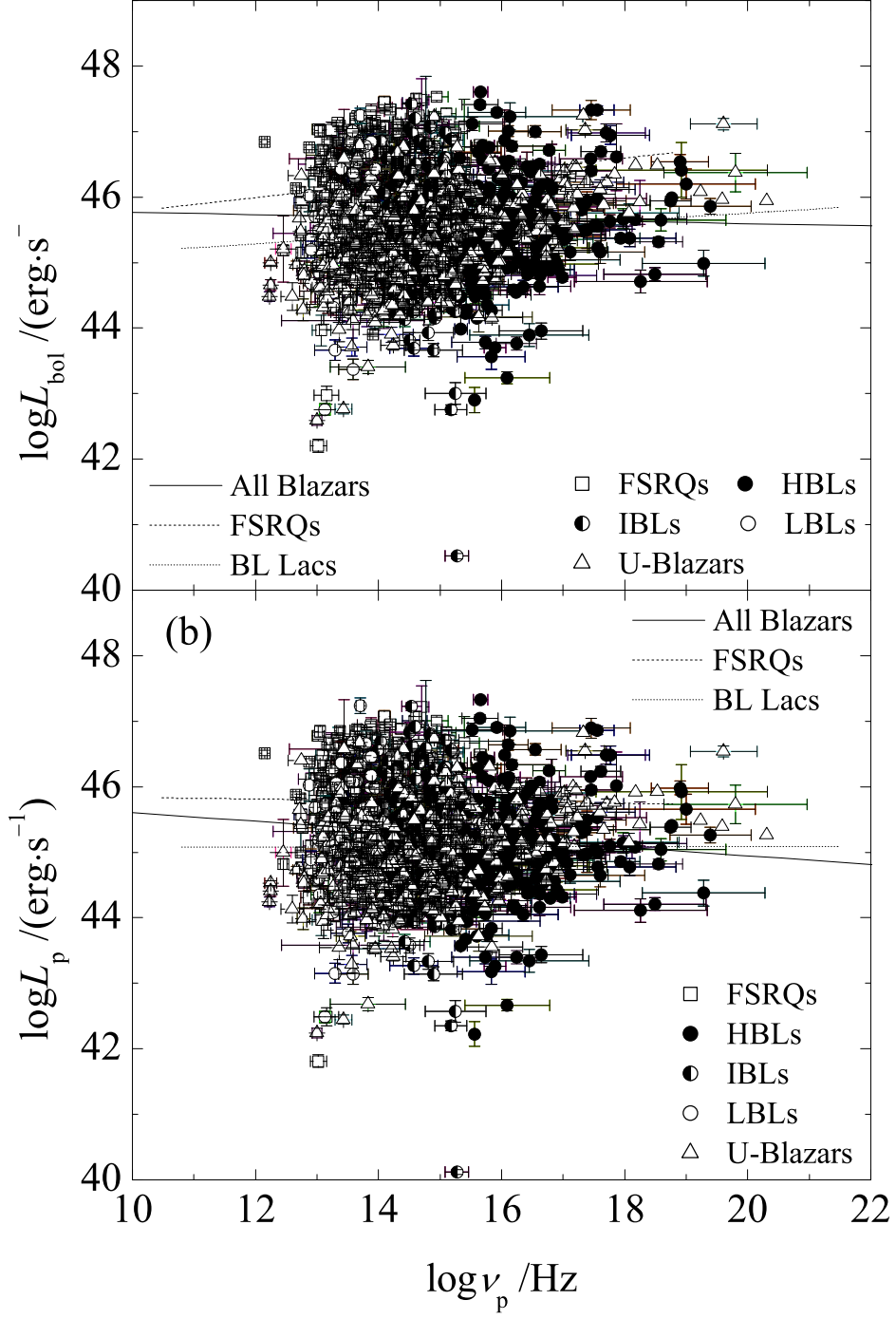


Fig. 7.— (a) The correlation between peak frequency ($\log \nu_p$) and integrated luminosity ($\log L_{\text{bol}}$); (b) The correlation between $\log \nu_p$ and peak luminosity ($\log L_p$).

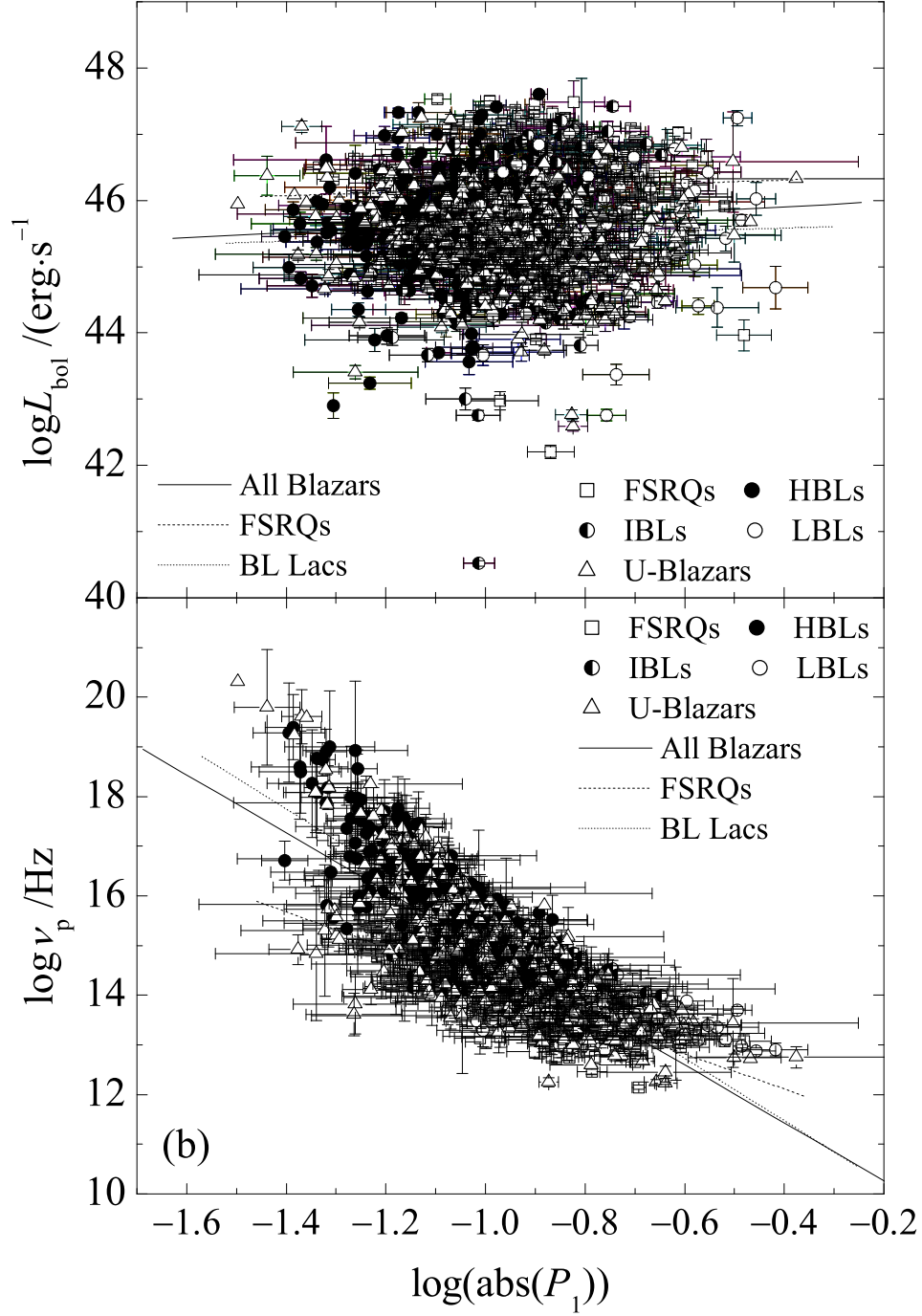


Fig. 8.— The correlation between spectral curvature ($\log(|P_1|)$) and integrated luminosity ($\log L_{\text{bol}}$) (a), and that between $\log(|P_1|)$ and peak frequency ($\log \nu_p$) (b).

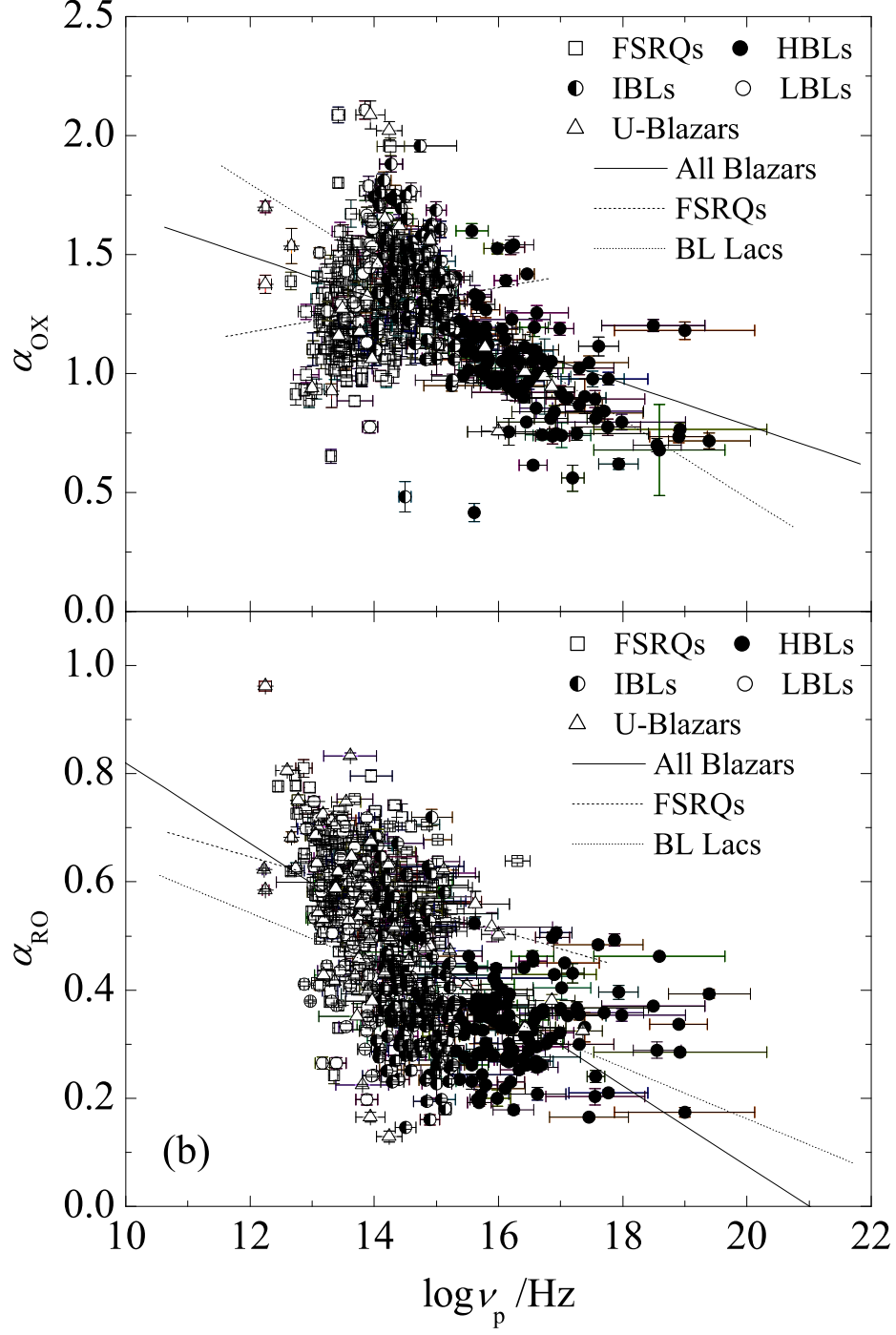


Fig. 9.— The correlation between peak frequency ($\log \nu_p$) and spectral index. (a) for $\log \nu_p$ vs α_{RO} , (b) for $\log \nu_p$ vs α_{OX}

Table 4. The linear regression analysis results for correlations between two parameters.

y vs x	Sample	$a \pm \Delta a$	$b \pm \Delta b$	r	n	p
$\log f_\gamma$ vs $\log f_R$	All Blazars	-11.75 ± 0.02	0.46 ± 0.02	0.61	1148	$< 10^{-4}$
	FSRQs	-11.73 ± 0.03	0.34 ± 0.04	0.39	415	$< 10^{-4}$
	BL Lacs	-11.74 ± 0.03	0.48 ± 0.02	0.64	536	$< 10^{-4}$
	HBLs	-11.63 ± 0.07	0.54 ± 0.04	0.66	198	$< 10^{-4}$
	IBLs	-11.75 ± 0.05	0.47 ± 0.04	0.62	241	$< 10^{-4}$
	LBLs	-11.79 ± 0.07	0.49 ± 0.07	0.57	97	$< 10^{-4}$
$\log f_\gamma$ vs $\log f_O$	All Blazars	-11.52 ± 0.09	0.17 ± 0.03	0.22	867	$< 10^{-4}$
	FSRQs	-11.15 ± 0.14	0.20 ± 0.04	0.27	368	$< 10^{-4}$
	BL Lacs	-10.89 ± 0.12	0.42 ± 0.04	0.49	423	$< 10^{-4}$
	HBLs	-10.49 ± 0.17	0.59 ± 0.05	0.72	137	$< 10^{-4}$
	IBLs	-10.79 ± 0.18	0.44 ± 0.05	0.50	185	$< 10^{-4}$
	LBLs	-11.54 ± 0.33	0.19 ± 0.09	0.21	101	0.0357
$\log f_\gamma$ vs $\log f_X$	All Blazars	-12.70 ± 0.22	-0.08 ± 0.03	-0.09	713	0.0146
	FSRQs	-10.49 ± 0.39	0.19 ± 0.05	0.21	269	0.0007
	BL Lacs	-12.11 ± 0.27	0.04 ± 0.04	0.04	391	0.3809
	HBLs	-9.79 ± 0.40	0.44 ± 0.06	0.45	180	$< 10^{-4}$
	IBLs	-11.23 ± 0.46	0.15 ± 0.07	0.16	181	0.0282
	LBLs	-10.62 ± 1.36	0.19 ± 0.19	0.18	30	0.3481
$\log L_R$ vs $\log \nu_p$	All Blazars	48.70 ± 0.38	-0.44 ± 0.03	-0.45	1148	$< 10^{-4}$
	FSRQs	43.97 ± 0.81	-0.05 ± 0.06	-0.04	415	0.3950
	BL Lacs	45.83 ± 0.51	-0.27 ± 0.03	-0.33	536	$< 10^{-4}$
	HBLs	42.03 ± 1.07	-0.04 ± 0.07	-0.05	198	0.4981
	IBLs	52.09 ± 2.64	-0.70 ± 0.18	-0.24	241	0.0001
	LBLs	42.17 ± 4.22	0.00 ± 0.31	0.00	97	0.9913
$\log L_O$ vs $\log \nu_p$	All Blazars	45.56 ± 0.38	-0.02 ± 0.03	-0.02	867	0.4876
	FSRQs	42.50 ± 0.84	0.22 ± 0.06	0.19	368	0.0002
	BL Lacs	45.35 ± 0.53	-0.01 ± 0.04	-0.02	423	0.6930
	HBLs	47.09 ± 1.44	-0.12 ± 0.09	-0.12	137	0.1632
	IBLs	46.60 ± 2.74	-0.09 ± 0.19	-0.04	185	0.6312
	LBLs	39.36 ± 3.36	0.41 ± 0.25	0.17	101	0.0954
$\log L_X$ vs $\log \nu_p$	All Blazars	43.58 ± 0.44	0.07 ± 0.03	0.09	713	0.0217
	FSRQs	45.36 ± 0.91	-0.02 ± 0.07	-0.02	269	0.7256
	BL Lacs	38.63 ± 0.61	0.37 ± 0.04	0.43	391	$< 10^{-4}$
	HBLs	40.39 ± 1.14	0.27 ± 0.07	0.28	180	0.0002
	IBLs	38.68 ± 2.74	0.36 ± 0.19	0.14	181	0.0571
	LBLs	87.14 ± 10.56	-3.13 ± 0.77	-0.63	30	0.0003
$\log L_\gamma$ vs $\log \nu_p$	All Blazars	49.58 ± 0.35	-0.29 ± 0.02	-0.32	1392	$< 10^{-4}$
	FSRQs	47.79 ± 0.88	-0.12 ± 0.06	-0.09	461	0.0661
	BL Lacs	46.80 ± 0.52	-0.13 ± 0.03	-0.15	620	0.0001
	HBLs	45.74 ± 1.12	-0.07 ± 0.07	-0.06	235	0.3224
	IBLs	50.88 ± 2.76	-0.41 ± 0.19	-0.13	271	0.0305
	LBLs	40.12 ± 4.38	0.36 ± 0.32	0.11	114	0.2631
$\log L_p$ vs $\log \nu_p$	All Blazars	46.26 ± 0.26	-0.07 ± 0.02	-0.10	1392	0.0003
	FSRQs	45.95 ± 0.67	-0.01 ± 0.05	-0.01	461	0.8163
	BL Lacs	45.06 ± 0.41	0.00 ± 0.03	0.00	620	0.9558
	HBLs	43.11 ± 0.97	0.12 ± 0.06	0.13	235	0.0436

3.3. Effective spectral index correlation

From the calculated effective spectral indexes, the scattering diagram between α_{RO} and α_{OX} is plotted in Fig. 10, and the linear regression analysis results are listed in Table 4.

4. Discussions

As a special subclass of AGNs, blazars show many extreme observational properties, which are associated with a beaming effect. Blazars can be divided into BL Lacertae objects (BL Lacs) and flat spectrum radio quasars (FSRQs) by their emission line features. They are the major population of detected sources in the Fermi missions (Abdo et al. 2010b,c; Ackermann, et al. 2011a,b; Nolan et al. 2012; Acero et al. 2015; Ackermann, et al. 2015). The Fermi detected blazars provide us with a good opportunity to study the emission mechanism and beaming effects in γ -rays. The spectral energy distributions (SEDs) are available for some blazars and studied in the literatures (see Sambruna et al. 1996; Zhang, et al. 2002; Nieppola et al. 2006, 2008; Abdo et al. 2010a). At the present work, the multiwavelength data is compiled for a sample of 1425 Fermi blazars from the 3FGL (Acero et al. 2015) and their SEDs are calculated. SEDs for 1392 blazars have successfully been achieved, and their monochromatic luminosities at radio, optical, X-ray and γ -ray, and effective spectral indexes are also calculated.

BL Lacertae objects can be divided into radio selected BL Lac objects (RBLs) and X-ray selected BL Lacs objects (XBLs) from surveys, or low frequency peaked BL Lacertae objects (LBLs, $\log \nu_p < 15$ Hz) and high frequency peaked BL Lacertae objects (HBLs, $\log \nu_p > 15$ Hz) from SEDs. Generally RBLs correspond to LBLs while XBLs to HBLs (Padovani & Giommi, 1995, 1996; Urry & Padovani, 1995). Nieppola, et al. (2006) calculated SEDs for a sample of BL Lacertae objects and set the boundaries for different subclasses: $\log \nu_p < 14.5$ Hz for LBLs, $14.5 \text{ Hz} < \log \nu_p < 16.5$ Hz for IBLs, and $\log \nu_p > 16.5$ Hz for HBLs. The classification was extended to all non-thermal dominated AGNs as low synchrotron peaked blazars-LSP ($\log \nu_p < 14$ Hz), intermediate synchrotron peaked blazars-ISP ($\log \nu_p = 14 \sim 15$ Hz), and high synchrotron peaked blazars-HSP ($\log \nu_p > 15$ Hz) by Abdo et al. (2010a).

Ghisellini (1999) proposed that there is a subclass of BL Lacs with their synchrotron peak frequencies being higher than that of conventional HBLs, $\nu_p > 10^{19}$ Hz. These objects can be called ultra-high-energy synchrotron peak BL Lacs (UHBLs) (Giommi et al. 2001). In the work presented by Nieppola et al. (2006), there are 22 objects with $\log \nu_p > 19$, of which 9 objects have $\log \nu_p > 20$. They also found the appearance of several low-radio-luminosity

Table 4—Continued

y vs x	Sample	$a \pm \Delta a$	$b \pm \Delta b$	r	n	p
$\log L_{\text{bol}}$ vs $\log \nu_{\text{p}}$	IBLs	48.69 ± 2.15	-0.25 ± 0.15	-0.10	271	0.0921
	LBLs	44.51 ± 3.29	0.05 ± 0.24	0.02	114	0.8471
	All Blazars	45.94 ± 0.26	-0.02 ± 0.02	-0.03	1392	0.3290
	FSRQs	44.77 ± 0.65	0.10 ± 0.05	0.10	461	0.0308
	BL Lacs	44.58 ± 0.41	0.06 ± 0.03	0.09	620	0.0292
	HBLs	42.77 ± 0.94	0.17 ± 0.06	0.19	235	0.0036
$\log \nu_{\text{p}}$ vs $\log(\text{abs}(P_1))$	IBLs	48.62 ± 2.12	-0.22 ± 0.14	-0.09	271	0.1330
	LBLs	42.64 ± 3.20	0.20 ± 0.24	0.08	114	0.3851
	All Blazars	9.09 ± 0.12	-5.84 ± 0.12	-0.78	1392	$< 10^{-4}$
	FSRQs	10.68 ± 0.12	-3.57 ± 0.13	-0.79	461	$< 10^{-4}$
	BL Lacs	8.97 ± 0.17	-6.27 ± 0.17	-0.83	620	$< 10^{-4}$
	HBLs	9.18 ± 0.38	-6.43 ± 0.34	-0.78	235	$< 10^{-4}$
$\log L_{\text{bol}}$ vs $\log(\text{abs}(P_1))$	IBLs	13.35 ± 0.21	-1.39 ± 0.22	-0.35	271	$< 10^{-4}$
	LBLs	12.71 ± 0.15	-1.10 ± 0.18	-0.50	114	$< 10^{-4}$
	All Blazars	46.06 ± 0.13	0.39 ± 0.13	0.08	1392	0.0031
	FSRQs	46.40 ± 0.20	0.24 ± 0.21	0.05	461	0.2580
	BL Lacs	45.66 ± 0.20	0.20 ± 0.20	0.04	620	0.3178
	HBLs	46.30 ± 0.54	0.69 ± 0.48	0.09	235	0.1508
α_{RO} vs $\log \nu_{\text{p}}$	IBLs	46.94 ± 0.53	1.60 ± 0.56	0.17	271	0.0054
	LBLs	45.80 ± 0.42	0.48 ± 0.52	0.09	114	0.3602
	All Blazars	1.57 ± 0.05	-0.07 ± 0.00	-0.59	770	$< 10^{-4}$
	FSRQs	1.06 ± 0.10	-0.03 ± 0.01	-0.25	336	$< 10^{-4}$
	BL Lacs	1.11 ± 0.07	-0.05 ± 0.00	-0.47	374	$< 10^{-4}$
	HBLs	0.24 ± 0.13	0.01 ± 0.01	0.07	116	0.4815
α_{OX} vs $\log \nu_{\text{p}}$	IBLs	1.94 ± 0.35	-0.11 ± 0.02	-0.32	171	$< 10^{-4}$
	LBLs	1.40 ± 0.56	-0.07 ± 0.04	-0.17	87	0.1100
	All Blazars	2.56 ± 0.12	-0.09 ± 0.01	-0.43	525	$< 10^{-4}$
	FSRQs	0.61 ± 0.30	0.05 ± 0.02	0.14	230	0.0292
	BL Lacs	3.78 ± 0.16	-0.16 ± 0.01	-0.70	273	$< 10^{-4}$
	HBLs	2.94 ± 0.31	-0.12 ± 0.02	-0.51	115	$< 10^{-4}$
α_{RO} vs α_{OX}	IBLs	4.50 ± 0.65	-0.21 ± 0.04	-0.39	128	$< 10^{-4}$
	LBLs	-2.38 ± 2.80	0.27 ± 0.20	0.26	30	0.1624
	All Blazars	0.57 ± 0.03	-0.07 ± 0.03	-0.13	478	0.0055
	FSRQs	0.93 ± 0.03	-0.27 ± 0.02	-0.61	215	$< 10^{-4}$
	BL Lacs	0.37 ± 0.03	0.01 ± 0.03	0.02	248	0.7566
	HBLs	0.52 ± 0.03	-0.19 ± 0.03	-0.54	98	$< 10^{-4}$
	IBLs	0.50 ± 0.07	-0.08 ± 0.05	-0.15	120	0.1077
	LBLs	0.75 ± 0.12	-0.17 ± 0.08	-0.38	30	0.0410

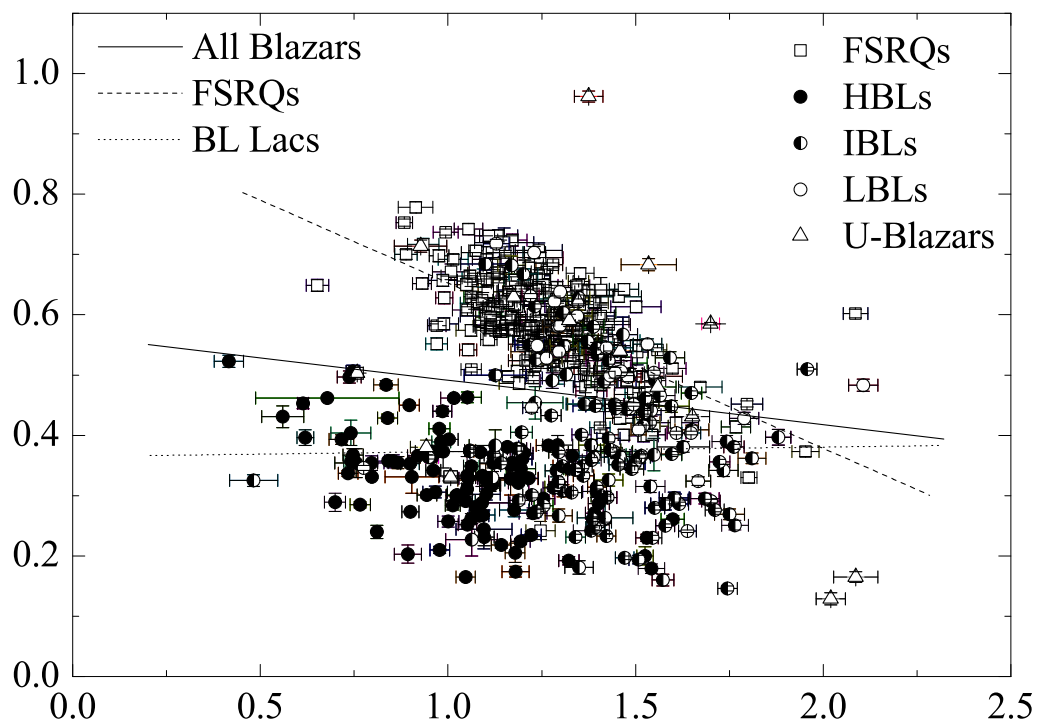


Fig. 10.— The correlation between α_{RO} and α_{OX} .

LBLs, which could even reach lower radio luminosities than any of the HBLs.

4.1. Peak Frequency

At the present work, SEDs have successfully been calculated for 1392 Fermi blazars from their multiwavelength data. The peak frequencies obtained in the range of $\log \nu_p$ (Hz) = 11.60 \sim 20.12 in the observer frame are listed in Col. (12) of Table 1. Out of the 1392 Fermi blazars, 999 blazars have available redshifts.

For those 999 blazars, the rest peak frequencies obtained are in the range of $\log \nu_p^{\text{rest}}$ (Hz) = 12.15 \sim 19.39 in the rest frame (frequency in the discussions below is assumed to be in the rest frame if it is not specifically stated). There are 3 sources, whose logarithm of peak frequencies is greater than 19.0 ($\log \nu_p^{\text{rest}}$ (Hz) \geq 19.0). When FSRQs, BLs, and BCUs are considered separately, we have: for FSRQs, their peak frequencies $\log \nu_p^{\text{rest}}$ (Hz) are in the range of 12.15 \sim 17.11 with an averaged value of $\langle \log \nu_p^{\text{rest}}$ (Hz) $\rangle = 13.94 \pm 0.65$; for BL Lacs, $\log \nu_p^{\text{rest}}$ (Hz) are in the range of 12.87 \sim 19.39 with $\langle \log \nu_p^{\text{rest}}$ (Hz) $\rangle = 15.07 \pm 1.19$; while for BCUs, $\log \nu_p^{\text{rest}}$ (Hz) are in the range of 12.25 \sim 17.36 with $\langle \log \nu_p^{\text{rest}}$ (Hz) $\rangle = 14.33 \pm 1.00$. The distribution of peak frequencies in the rest frame for the 999 blazars is shown in Fig. 2d. It can be seen that the distribution can be fitted using 3 components when the Bayesian classification analysis method is employed. When the jointing points of two adjacent Gaussian curves are used to set the boundaries for different classes and the acronyms of Abdo et al. (2010a) are used, we obtain the following classifications:

LSPs: $\log \nu_p$ (Hz) \leq 14.0,

ISPs: $14.0 < \log \nu_p$ (Hz) \leq 15.3, and

HSPs: $\log \nu_p$ (Hz) $>$ 15.3 Hz.

For the whole sample of 1392 blazars, if the averaged values of redshift, $\langle z \rangle = 0.568$ and $\langle z \rangle = 0.524$ are used to BLs and BCUs without redshifts, the rest peak frequencies can be obtained in the range of $\log \nu_p^{\text{rest}}$ (Hz) = 12.15 \sim 20.31. In this case, there are 8 sources, whose logarithm of peak frequencies is greater than 19.0 ($\log \nu_p^{\text{rest}}$ (Hz) \geq 19.0). Their distributions and statistical analysis results using the "Bayesian classification" method are shown in Fig. 2b and Fig. 3b respectively. Based on the above-mentioned classification criteria, the classification (HSP, ISP, and LSP) obtained is listed in Col. 3 of Table 1. From Fig. 2b, it can be seen that the peak frequencies corresponding to the jointing points are higher than those in Fig. 2d. This implies that the averaged values of redshifts used to get the rest frequencies are over estimated for most sources without redshifts.

From the rest frame peak frequencies of the whole sample and our criteria, we have: 25.14% of them belong to HSP, 40.09% belong to ISP, and 34.77% belong to LSP. When FSRQs, BLs, and BCU are considered separately, we have: 9 are HSP FSRQs, 180 are ISP FSRQs, and 272 are LSP FSRQs for 461 FSRQs; and 235 are HSP BLs, 272 are ISP BLs, and 114 are LSP BLs for the 620 BLs. See Table 2 for details.

As shown in Table 1, there are 22 sources, whose logarithm of the rest peak frequency is greater than 18 ($\log \nu_p^{\text{rest}}(\text{Hz}) \geq 18.0$) and the other 8 sources, $\log \nu_p^{\text{rest}}(\text{Hz}) \geq 19.0$, however statistical analysis does not come up with an ultra-high synchrotron peak component for the 999 sources with available redshift or the whole 1392 sources (See Fig. 2d, 2b) for the rest frequencies. We do not have such an ultra-high synchrotron peak component for the observer frequency either for the 999 sources with available redshift or for the whole sample of 1392 sources (See Fig. 2c, 2a). In Fig. 27 of Abdo et al. (2010a), it is stated that there is no population of ultra high energy peaked (UHBLS) blazars. Our statistical analysis confirms the results.

For the classifications, Abdo et al. (2010a) proposed, $\log \nu_p(\text{Hz}) < 14.0$ for LSPs, $14.0 \leq \log \nu_p(\text{Hz}) \leq 15.0$ for ISPs, and $\log \nu_p(\text{Hz}) > 15.0$ for HSPs. From Fig. 2d at the present work, two jointing points at $\log \nu_p^{\text{rest}}(\text{Hz}) = 13.98$ and $\log \nu_p^{\text{rest}}(\text{Hz}) = 15.30$ can be obtained, and this results in that the boundaries are at $\log \nu_p^{\text{rest}}(\text{Hz}) = 14.0$ and $\log \nu_p^{\text{rest}}(\text{Hz}) = 15.3$. From Table 1, the uncertainties for $\log \nu_p$ from $\Delta \log \nu_p = 0.02$ to $\Delta \log \nu_p = 1.39$ with an averaged value of $< \Delta \log \nu_p > = 0.24 \pm 0.21$ can be obtained. Considering the uncertainties in $\log \nu_p$, we believe that our classifications are consistent with those by Abdo et al. (2010a).

For comparison, we analyze our synchrotron peak frequencies ($\log \nu_p^{\text{TW}}$) with those ($\log \nu_p^{\text{other}}$) known for common sources in the literatures by Sambruna et al. (1996), Nieppola et al. (2006, 2008) and Abdo et al. (2010b). First we calculate the difference between our estimation and others', ($\log \nu_p^{\text{TW}} - \log \nu_p^{\text{other}}$), then investigate the relationship between the differences and our estimations.

There are 35 sources in common with Sambruna et al. (1996), and we have $(\log \nu_p^{\text{TW}} - \log \nu_p^{\text{S96}}) = (0.23 \pm 0.15) \log \nu_p^{\text{TW}} - 3.02 \pm 2.20$ with a correlation coefficient $r = 0.25$ and a chance probability 14.5%. Our estimations tend to be larger than those by Sambruna et al. (1996) for some sources. It is also found that two sources with difference being larger than 2.0 are HSPs with $\log \nu_p(\text{Hz}) > 15$ (See Fig. 11a).

There are 129 sources in common with Nieppola et al. (2006), $(\log \nu_p^{\text{TW}} - \log \nu_p^{\text{N06}}) = -(0.32 \pm 0.08) \log \nu_p^{\text{TW}} + 4.52 \pm 1.16$ with $r = -0.35$ and $p < 10^{-4}$. There is a clear anti-correlation between them, indicating that our estimations are smaller than those by Nieppola

et al. (2006) for most common sources. Fig. 11b shows that our estimations of 4 source are greatly larger than those by Nieppola et al. (2006) and that the sources with large deviation are the sources with $\log\nu_p(\text{Hz}) > 15$.

There are 82 sources in common with Nieppola et al. (2008), $(\log\nu_p^{\text{TW}} - \log\nu_p^{\text{N08}}) = (0.16 \pm 0.08)\log\nu_p^{\text{TW}} - 1.61 \pm 1.12$ with $r = 0.22$ and $p = 4.7\%$. There is a marginal positive correlation between them, indicating that our estimations are larger than those by Nieppola et al. (2008) (See Fig. 11c).

There are 102 sources in common with Abdo et al. (2010a), $(\log\nu_p^{\text{TW}} - \log\nu_p^{\text{A10}}) = (0.24 \pm 0.06)\log\nu_p^{\text{TW}} - 2.95 \pm 0.80$ with $r = 0.40$ and $p < 10^{-4}$. If the right hand corner point is excluded, we have $(\log\nu_p^{\text{TW}} - \log\nu_p^{\text{A10}}) = (0.19 \pm 0.06)\log\nu_p^{\text{TW}} - 2.18 \pm 0.88$ with $r = 0.29$ and $p = 2.9 \times 10^{-3}$. The analysis indicates that our estimations are larger than those by Abdo et al. (2010a) (See Fig. 11d). All the comparisons conducted and the best fitting results are listed in Table 5.

From the literatures (Sambruna et al. 1996; Pian et al. 1998; Nieppola et al. 2006, 2008; Abdo et al. 2010a; Giommi et al. 2000) and the present work, it is noted that the peak frequency (in observer frame) for a certain source is different from one calculation to another based on different multiwavelength observations. For some sources, the different spectral shapes may be attributed to the variability and different data sets. The comparisons suggest that there is no much difference between our estimations and those by Sambruan et al. (1996) and Nieppola et al. (2006), but ours are over estimated than those by Nieppola et al. (2008) and Abdo et al. (2010a).

Abdo et al. (2010a) and Ackermann et al. (2011a) obtained the spectral indexes, α_{ox} and α_{ro} for Fermi blazars. So comparisons can be conducted between their spectral indexes

Table 5. The linear regression analysis results for correlations between two parameters.

y vs x	$a \pm \Delta a$	$b \pm \Delta b$	r	N	p
$(\log\nu_p^{\text{TW}} - \log\nu_p^{\text{S96}}) \text{ vs } \log\nu_p^{\text{TW}}$	-3.02 ± 2.20	0.23 ± 0.15	0.25	35	0.145
$(\log\nu_p^{\text{TW}} - \log\nu_p^{\text{N06}}) \text{ vs } \log\nu_p^{\text{TW}}$	4.52 ± 1.16	-0.32 ± 0.08	-0.35	129	$< 10^{-4}$
$(\log\nu_p^{\text{TW}} - \log\nu_p^{\text{N08}}) \text{ vs } \log\nu_p^{\text{TW}}$	-1.61 ± 1.12	0.16 ± 0.08	0.22	82	0.047
$(\log\nu_p^{\text{TW}} - \log\nu_p^{\text{A10}}) \text{ vs } \log\nu_p^{\text{TW} \dagger}$	-2.95 ± 0.80	0.19 ± 0.06	0.29	101	$< 10^{-4}$
$(\log\nu_p^{\text{TW}} - \log\nu_p^{\text{A10}}) \text{ vs } \log\nu_p^{\text{TW}}$	-2.18 ± 0.88	0.24 ± 0.06	0.40	101	2.9×10^{-3}
$(\alpha_{ro}^{\text{TW}} - \alpha_{ro}^{\text{A10}}) \text{ vs } \alpha_{ro}^{\text{TW}}$	-0.02 ± 0.01	-0.12 ± 0.03	-0.17	724	$< 10^{-4}$
$(\alpha_{ox}^{\text{TW}} - \alpha_{ox}^{\text{A10}}) \text{ vs } \alpha_{ox}^{\text{TW}}$	-0.33 ± 0.04	0.29 ± 0.03	0.36	498	$< 10^{-4}$
$(\alpha_{ro}^{\text{TW}} - \alpha_{ro}^{\text{A11}}) \text{ vs } \alpha_{ro}^{\text{TW}}$	-0.01 ± 0.02	-0.17 ± 0.03	-0.22	514	$< 10^{-4}$
$(\alpha_{ox}^{\text{TW}} - \alpha_{ox}^{\text{A11}}) \text{ vs } \alpha_{ox}^{\text{TW}}$	-0.33 ± 0.05	0.29 ± 0.04	0.35	376	$< 10^{-4}$

Excluded the up right corner point.

† :

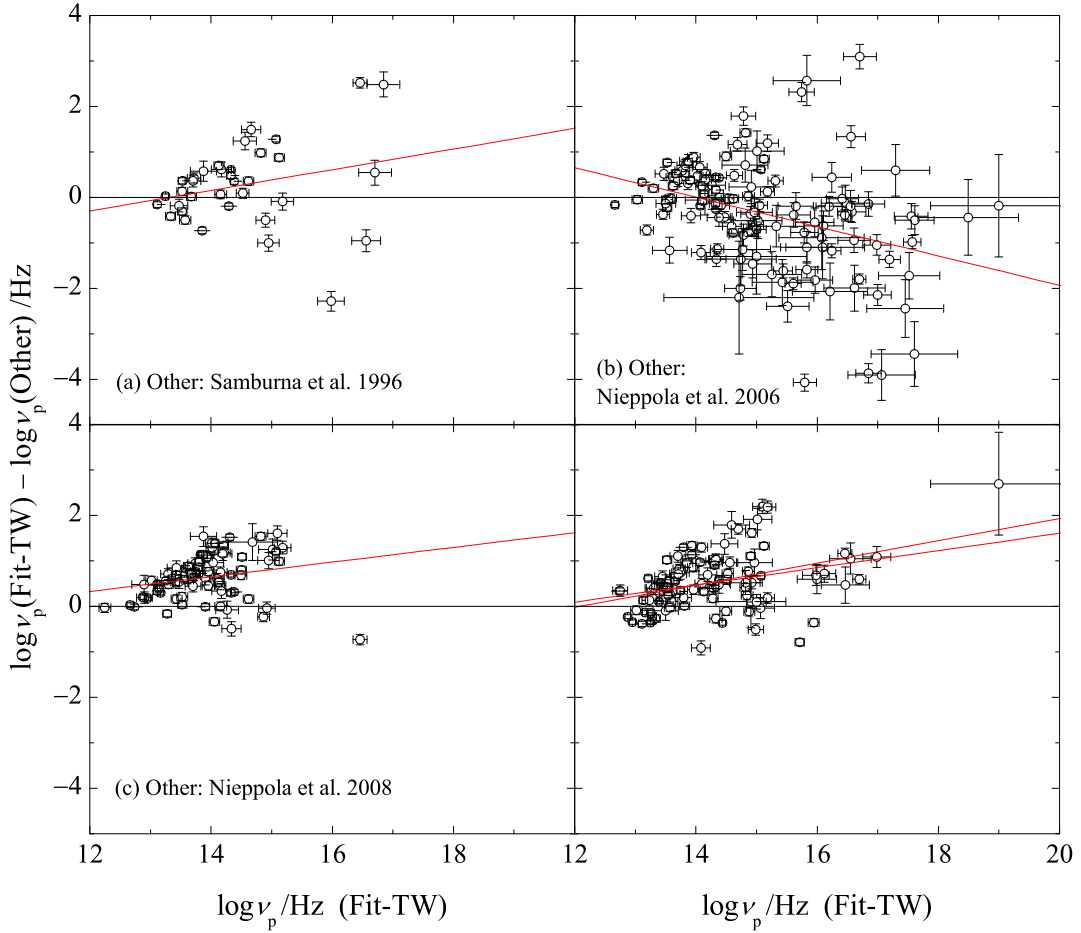


Fig. 11.— The plot of the difference between fitted peak frequency ($\log \nu_p^{\text{TW}}$) and that obtained from other literatures, $\log \nu_p^{\text{Other}}$, against that from SED fitting, $\log \nu_p^{\text{TW}}$. The $y = 0$ line stands for $\log \nu_p^{\text{TW}} = \log \nu_p^{\text{Other}}$, another line stands for the best fitting result. (a) Sambruna, et al. 1996, (b) Nieppola, et al. 2006, (c) Nieppola, et al. 2008, (d) Abdo, et al. 2010a.

and ours.

For spectral index, α_{ro} , there are 724 sources in common with Abdo et al. (2010a), we have $\alpha_{ro}^{TW} - \alpha_{ro}^{A10} = -(0.12 \pm 0.03)\alpha_{ro}^{TW} - (0.02 \pm 0.01)$ with a correlation coefficient $r = -0.17$ and a chance probability $p < 10^{-4}$ (Fig. 12a); while for α_{ox} , there are 498 common sources, which follow $\alpha_{ox}^{TW} - \alpha_{ox}^{A10} = (0.29 \pm 0.03)\alpha_{ox}^{TW} - (0.33 \pm 0.04)$ with $r = 0.36$ and $p < 10^{-4}$ (Fig. 12b). The marginal positive correlation that we observe in Fig. 11d is likely due to the positive correlation we observe here in Fig. 12b.

For spectral indexes in Ackermann et al. (2011a), there are 514 α_{ro} for common sources, we have $\alpha_{ro}^{TW} - \alpha_{ro}^{A11} = -(0.17 \pm 0.03)\alpha_{ro}^{TW} - (0.01 \pm 0.02)$ with a correlation coefficient $r = -0.22$ and a chance probability $p < 10^{-4}$; while for α_{ox} , there are 376 common sources, which follow $\alpha_{ox}^{TW} - \alpha_{ox}^{A11} = (0.29 \pm 0.04)\alpha_{ox}^{TW} - (0.33 \pm 0.05)$ with $r = 0.35$ and $p < 10^{-4}$. Results are shown in Fig. 13. As shown in Fig. 12 and Fig. 13, the differences in our estimate and those by Abdo et al. (2010a) and Ackermann et al. (2011a) scatter more or less around 0. Some of our α_{ro} 's are slightly smaller than those by Abdo et al. (2010a) and Ackermann et al. (2011a) and some of our α_{ox} 's are slightly larger than those by Abdo et al. (2010a) and Ackermann et al. (2011a), but no strong systematics appear. Because the flux densities used for the calculations of spectral indexes by Abdo et al. (2010a) and Ackermann et al. (2011a) are different from those at the present work, the calculation results of the spectral indexes are different as well.

In 2010, Abdo et al. (2010a) presented an empirical relation to estimate the synchrotron peak frequency, ν_p from effective spectral indexes α_{ox} and α_{ro} . Following their work, we obtain an empirical relation to estimate the synchrotron peak frequency, $\nu_p^{Eq.}$ from effective spectral indexes α_{ox} and α_{ro} as

$$\log \nu_p^{Eq.} = \begin{cases} 16 + 4.238X & X < 0 \\ 16 + 4.005Y & X > 0 \end{cases}, \quad (1)$$

where $X = 1.0 - 1.262\alpha_{ro} - 0.623\alpha_{ox}$, and $Y = 1.0 + 0.034\alpha_{ro} - 0.978\alpha_{ox}$.

Based on Eq. (1) and the effective spectral indexes in the present paper, $\log \nu_p^{Eq.}$ can be derived, then we compare the relationship between the derived peak frequency ($\log \nu_p^{Eq.}$) and fitted peak frequency ($\log \nu_p^{Fit}$). Similar to the above, we investigate the relationship between the difference ($\log \nu_p^{Fit} - \log \nu_p^{Eq.}$) and $\log \nu_p^{Fit}$. The result is shown in Fig. 14. The differences in our fitted peak frequency and the derived peak frequency for most sources scatter more or less around 0, but the derived peak frequency for high frequency source is underestimated as compared with the fitted peak frequency.

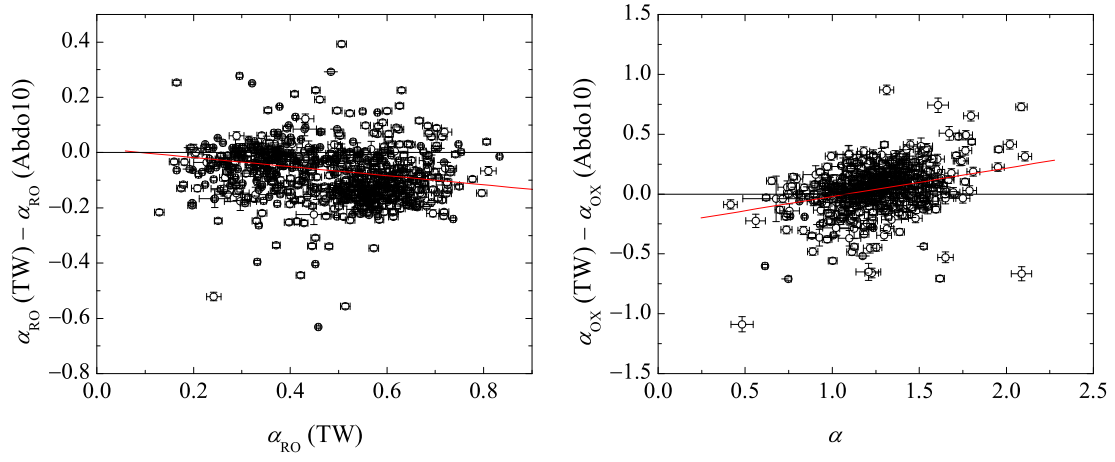


Fig. 12.— The plot of the difference between our spectral index and that from Abdo et al. (2010a), against our spectral index. The $y = 0$ line stands for our spectral index is the same as that from Abdo et al. (2010a), another line stands for the best fitting result. Left panel is for α_{ro} ; Right panel is for α_{ox} .

4.2. Correlations

4.2.1. Luminosity vs Luminosity

The correlations between γ -ray luminosity ($\log L_\gamma$) and other luminosities including radio ($\log L_R$), optical ($\log L_O$), and X-ray emission ($\log L_X$) have been discussed (Dondi & Ghisellini 1995; Fan et al. 1998; Fossati et al. 1998; Cheng et al. 2000). It is found that the correlation between γ -ray and radio is the closest. At the present work, we revisit those correlations using a large sample of Fermi blazars. The relationship between γ -ray luminosity and synchrotron peak luminosity ($\log L_p$), and the relationship between γ -ray luminosity and integrated luminosity ($\log L_{\text{bol}}$) are both investigated for the whole blazar sample and subclasses of FSRQs, BL Lacs (HBLs, IBLs and LBLs). The results are shown in Figs. 4, 5 and Table 3, and demonstrate very good correlations. The correlation coefficients are all greater than 0.68 with all chance probabilities being less than 10^{-4} .

It is known that luminosities are all correlated with redshift (z), so luminosity-luminosity correlation may be from a redshift effect (Kendall & Stuart, 1979). A real correlation should remove the redshift effect. In doing so, we use the method by Padovani (1992). If variables i and j are correlated with the third variable k , then the correlation between i and j should exclude the effect of the third variable k . In the case of three variables i , j and k , if the correlation coefficients of the relation between any two variables are represented as r_{ij} , r_{ik} , r_{jk} respectively, then the correlation coefficient r_{ij} excluded the effect of the third variable k is represented as $r_{ij,k} = (r_{ij} - r_{ik}r_{jk}) / \sqrt{(1 - r_{ik}^2)(1 - r_{jk}^2)}$. When the method is adopted to discuss the correlations between any two luminosities, the correlation coefficients subtracting the effect of redshift are thus listed in Table 3 ($r_{LL,z}$ is the correlation coefficient and $p_{LL,z}$ is the chance probability).

From Table 3, it is noted that there is a good correlation between γ -ray luminosity ($\log L_\gamma$) and radio 1.4 GHz luminosity ($\log L_R$) for the whole sample and the subclasses with correlation coefficients $r_{L_\gamma L_R,z} = 0.554, 0.420, 0.613, 0.535, 0.628$ and 0.536 for all blazars sample and subclasses of FSRQs, BL Lacs, HBLs, IBLs and LBLs respectively. For $\log L_\gamma$ and $\log L_O$, the corresponding correlation coefficients are $r_{L_\gamma L_O,z} = 0.257, 0.325, 0.479, 0.663, 0.518$ and 0.277 . While for $\log L_\gamma$ and $\log L_X$, correlation coefficients are $r_{L_\gamma L_X,z} = -0.134, 0.254, -0.082, 0.265, 0.202$ and 0.103 . It can be seen that the correlation between γ -rays and radio and that between γ -rays and optical bands exist even after removing the redshift effect. But the correlation between γ -rays and X-ray bands only exists for FSRQs and HBLs. There is no more correlation for LBLs. For FSRQs, their X-ray emissions are from the synchrotron emission tail and external Compton emission, the later is also strongly believed to contribute to γ -ray emission. Therefore external Compton emission can also make contribution to the

X-ray emissions: the more contribution to the X-ray emissions the more contribution to the γ -ray emissions. Thus it can be expected that a correlation exists between X-ray and γ -ray emissions. For BL Lacs, synchrotron self-Compton emissions are mainly responsible for the whole electromagnetic wavebands. Then for HBLs, their X-rays are from synchrotron emissions while their γ -rays are from self-Compton. So a correlation between X-ray and γ -ray can be expected; while for LBLs, their X-ray emissions are from the summation of synchrotron emission tail and self-Compton emission, their γ -rays are from self-Compton. In this case, the summation will dilute the correlation between X-ray and γ -ray emissions.

From our analysis, it is found that for FSRQs, after removing the redshift effect, there is still strong correlations between γ -ray and radio, between γ -rays and optical, and between γ -rays and X-ray emissions with the correlation coefficients decreasing from $r_{L_\gamma L_R, z}$ to $r_{L_\gamma L_X, z}$. While for BL Lacs, the strongest correlation is between L_γ and L_R , but there is almost no correlation between L_γ and L_X .

We now discuss the relationship between the γ -ray flux density and the lower energetic band flux densities by adopting the linear regression method. It is found that there exist correlations between γ -ray and radio, between γ -rays and optical, and between γ -rays and X-ray emissions with chance probabilities being less than 10^{-4} for FSRQs. For BL Lacs, there exist correlations between γ -ray and radio, between γ -rays and optical bands, but there is no correlation between γ -rays and X-ray emissions. However, there exists a correlation between γ -rays and X-ray for HBLs. The linear regression analysis results are listed in Table 4 and shown in Fig. 15. It is interesting that the flux density-flux density analysis results are consistent with the luminosity-luminosity correlation results after the redshift effect is removed. It can be seen that the correlation between γ -rays and radio is the strongest.

For the correlation between radio and γ -ray emissions, similar analysis results are presented in many literatures: Abdo et al. (2009a) and Giroletti et al. (2010) found that there is a possible correlation between the 8.4 GHz radio flux and the γ -ray flux. Ackermann et al. (2011b) found that there is a correlation between γ -ray and 8.4GHz/15GHz radio fluxes. Ghirlanda et al. (2010) found that there is a strong correlation between the radio flux at 20 GHz (F_r) and the γ -ray flux above 100 MeV (F_γ). Nieppola et al. (2011) found a significant correlation between both the flux densities and luminosities in γ -ray and 37 GHz radio bands. Our γ -ray vs radio correlation result is consistent with those reported. It is commonly found that the radio emission in blazars are strongly beamed, γ -ray emissions are also beamed (see Fan et al. 2014 and references therein). It is possible that the correlation between radio and γ -ray band is an apparent correlation caused by the beaming effect. If the γ -ray emissions are from an SSC process, then there is a correlation between γ -ray and radio emissions. It is also possible that the radio and γ -ray correlation implies that γ -ray

radiation is produced co-spatially with the radio emission in the jet (Nieppola et al. 2011).

Correlations between γ -ray luminosity and peak luminosity (and integrated luminosity) are also discussed in this paper (Fig. 5). $\log L_\gamma = (1.05 \pm 0.04)\log L_{\text{bol}} - (2.26 \pm 1.80)$, and $\log L_\gamma = (1.00 \pm 0.04)\log L_p + (0.30 \pm 1.80)$ with chance probabilities $p < 10^{-4}$ for FSRQs and $\log L_\gamma = (1.11 \pm 0.03)\log L_{\text{bol}} - (5.66 \pm 1.18)$, and $\log L_\gamma = (1.08 \pm 0.03)\log L_p - (3.72 \pm 1.20)$ with $p < 10^{-4}$ for BL Lacs. Their correlations are strong, and the slopes of the relations for FSRQs are similar to those for BL Lacs. But the intercepts in the linear correlation for BL Lacs are smaller than those for FSRQs, which indicate that for the same peak luminosity (or integrated luminosity), FSRQs show more luminous γ -ray emissions than BL Lacs (See also Table 4). This is consistent with the claim that the γ -ray emissions are mainly from EC in FSRQs, resulting in increased Compton dominance. For FSRQs, their radio emissions are strongly beamed and luminous while in the γ -ray, their increased Compton dominance also results in luminous emission. Therefore, such effects can produce a correlation between radio and γ -rays.

4.2.2. Other correlations

At the present work, correlations are investigated with different parameters: Correlation between the peak frequency and monochromatic luminosity (γ -ray, X-ray, optical, and Radio band) (Fig. 6), correlation between the peak frequency and the integrated luminosity (and peak luminosity) (Fig. 7), correlation between spectral curvature and integrated luminosity (and peak frequency) (Fig. 8), correlation between the peak frequency and the effective spectral indexes (Fig. 9), and the correlation between effective spectral indexes (Fig. 10). The linear regression analysis results are listed in Tables 3 and 4.

For peak frequency ($\log \nu_p$) and monochromatic luminosity ($\log L_\nu$), $\log \nu_p$ vs $\log L_\nu$ (Fig. 6); our analysis indicates a strong anti-correlation between γ -ray luminosity ($\log L_\gamma$) and peak frequency ($\log \nu_p$), $\log L_\gamma = -(0.29 \pm 0.02)\log \nu_p + (49.58 \pm 0.35)$ with a correlation coefficient $r = -0.32$ and a chance probability $p < 10^{-4}$, and that between radio luminosity ($\log L_R$) and peak frequency ($\log \nu_p$), $\log L_R = -(0.44 \pm 0.03)\log \nu_p + (48.70 \pm 0.38)$ with $r = -0.45$ and $p < 10^{-4}$ for the whole sample. A marginally positive correlation can be found between X-ray luminosity ($\log L_X$) and peak frequency ($\log \nu_p$), but there is no correlation between optical luminosity ($\log L_O$) and peak frequency ($\log \nu_p$). See Table 3 for details. It is possible that the strong anti-correlation is from the beaming effect as discussed in Nieppola et al. (2008). In their work, the Doppler factor is found to be larger at lowly peaked sources and may be smaller at highly peaked sources, HBLs for instance. So, the lower peak sources have larger Doppler factors resulting in a larger boosting, and higher

peak sources have smaller Doppler factors resulting in a weaker boosting. Therefore there is an anti-correlation between the γ -ray luminosity and peak frequency and that between radio luminosity and peak frequency for BL Lacertae objects. For FSRQs, their γ -ray emissions are dominated by EC emissions, thus they are luminous as observations indicate. Their radio emissions are strongly beamed, in this sense, there is an anti-correlation between the γ -ray luminosity and peak frequency and that between radio luminosity and peak frequency. For BL Lacs, the X-ray emissions are from the synchrotron emission tail and self-Compton emissions for LBLs, but mainly from synchrotron emissions for HBLs, so that it results in a positive correlation between X-ray luminosity and peak frequency. For FSRQs, their X-ray emissions are from synchrotron emission tail, self-Compton emissions and some EC emissions, thus there is no clear correlation between X-ray luminosity and peak frequency ($p = 72.56\%$). In optical bands, it is quite complicated that the emissions may be beamed as radio, also they are from different emission mechanisms. For lowly peaked sources, when the peak frequency moves to lower frequency side, its optical emissions will decrease, and the inverse Compton emission will also make contributions to this band; For highly peaked sources, their intrinsic emissions are luminous as discussed in Nieppola et al. (2008). In addition, it is possible that there are emissions from host galaxies for BLs and accretion for FSRQs. All those effects will dilute the correlation between the optical luminosity and the peak frequency.

For $\log \nu_p$ vs $\log L_{\text{bol}}$ (Fig. 7a): there is no correlation between synchrotron peak frequency ($\log \nu_p$) and integrated luminosity ($\log L_{\text{bol}}$) for the whole sample ($r = -0.03$ and $p = 32.9\%$). But there are marginal correlations for FSRQs ($r = 0.10$ and $p = 3.1\%$) and BL Lacs ($r = 0.09$ and $p = 2.9\%$). For HBLs, we also have a positive correlation with $r = 0.19$ and $p = 3.6 \times 10^{-3}$.

In 1996, Sambruna et al. calculated SEDs and obtained effective spectral indexes for a sample of blazars, and found that the primary correlations exist for α_{RO} vs α_{XOX} ($= \alpha_{\text{X}} - \alpha_{\text{OX}}$), α_{RO} vs $\log L_{\text{bol}}$, and α_{RO} vs redshift. From Fig. 5 of their paper, it is found that there is a positive tendency for the integrated luminosity to increase with peak frequency for XBLs while there is no such a tendency for FSRQs or RBLs. Our analysis shows that there is a positive correlation for HBLs, which is consistent with the result for XBLs shown in Fig. 5 of Sambruna et al. (1996). As for FSRQs and LBLs in our work, there is a marginal correlation for FSRQs but no clear correlation for LBLs ($r = 0.08$ and $p = 28.7\%$). In fact, there is a strong correlation between the integrated luminosity and the optical luminosity, $\log L_{\text{bol}} = (0.91 \pm 0.04)\log L_{\text{O}} + 1.17 \pm 0.20$ from the present work. The effects discussed above for optical band will also cause the dilution for integrated luminosity for FSRQs and LBLs. From Fig. 1 of Nieppola et al. (2008), it can be seen that the Doppler factor is in the range of 1.5 to 28.5 for the lowly peaked sources, such that it is possible that some objects

are strongly beamed while others are not so strongly beamed for FSRQs and LBLs. Such a difference in Doppler factor will also dilute the correlation for FSRQs and BL Lacs. Thus there is no correlation for the whole sample. In this sense, our result is consistent with that by Sambruna et al. (1996).

For $\log \nu_p$ vs $\log L_p$ (Fig. 7b), there is an anti-correlation for the whole sample with $r = -0.10$ and $p = 3 \times 10^{-4}$ resulting in that peak luminosity decrease with increasing ν_p . However there is no correlation for FSRQs ($p = 81.6\%$) or BL Lacs ($p = 95.6\%$). But there is a marginal positive correlation for HBLs with $r = 0.13$ and $p = 4.4\%$. For HBLs, brighter sources tend to show higher peak frequency while for LBLs and FSRQs, there is no clear tendency. In the work presented by Fossati et al. (1998), it can be seen that ν_p decreases with increasing luminosity as shown in Fig. 7 for the whole sample. But for XBLs, there is a sign for luminosity to increase with increasing peak frequency. Our results are consistent with those by Fossati et al. (1998).

Nieppola, et al. (2008) discussed the correlation of Doppler factor against the rest peak frequency and found the Doppler factors decrease with increasing rest peak frequencies as shown in Fig. 1. They also investigated the correlation between L_p and ν_p for a sample of blazars using their corrected peak frequency and peak luminosity, and found that there is an intrinsically positive correlation between them. Our work shows an anti-correlations between luminosity ($\log L_{bol}$ and $\log L_p$) and peak frequency ($\log \nu_p$) for the whole sample, but there is a marginal correlation between luminosity and peak frequency for HBLs with $r = 0.13$ and $p = 4.4\%$. As investigated by Nieppola et al. (2008), it is found that the beaming factor (Doppler factor) decreases with peak frequency and high frequency sources may be weakly beamed, and the anti-correlation of peak luminosity and peak frequency is caused by a beaming effect. Since Doppler boosting decreases with peak frequency and the Doppler factor may be small for highly peaked sources as shown in Fig. 1 by Nieppola et al. (2008), then we can say that our HBLs have weak beaming effect. Therefore their observed luminosity can be taken as intrinsic one, and the marginally positive correlation for HBLs shows the intrinsic situation. For HBLs, if there are more particles being accelerated to higher energy, one can expect more luminous luminosity in higher frequency so that there is a positive correlation between the peak frequency and the peak luminosity. In the case of HBLs, the observed emissions do not need Doppler correction. We know from Fig. 1 by Nieppola et al. (2008) that difference in Doppler factor for FSRQs and LBLs will also dilute the correlation of L_p and ν_p for FSRQs and BL Lacs.

For peak frequency ($\log \nu_p$) and spectral curvature (P1), we investigate their relationship, $\log \nu_p$ against $\log |P_1|$ (Fig. 8b). There is a clear anti-correlations between them, $\log \nu_p = -(5.81 \pm 0.12)\log(|P_1|) + (9.09 \pm 0.12)$ with $r = -0.78$ and $p < 10^{-4}$ for the

whole sample. Clear anti-correlations exist for subclasses, FSRQs, BL Lacs, and the subclasses of BL Lacs with $p < 10^{-4}$ (See Table 4 for details). The SED of a blazar can be calculated using $\log \nu f_\nu = -P_1(\log \nu - P_2)^2 + P_3$. When multi-epochs of X-ray observations are considered for the spectra of Mkn 421, a log-parabolic law is found good for its spectra and anti-correlations between the peak frequencies and the curvatures show up (Massaro et al. 2004, Tramacere et al. 2007, 2009). Similar result was presented for Mkn 501 (Massaro et al. 2006). Tramacere et al. (2007, 2009) pointed out that the observed anti-correlation between the peak frequency and the curvature in the synchrotron SED results from a stochastic component in the acceleration process (see also Tramacere et al. (2011) for further physics consideration and numerical approach, and application to more BL Lacs). Our statistical results confirm the anti-correlation (Massaro et al. 2004, Tramacere et al. 2007, 2009), and this kind of anti-correlation is a strong signature of a stochastic component in the acceleration (Tramacere et al. 2011).

For the integrated luminosity and spectral curvature, there is a positive correlation for the whole sample, but such correlation does not exist for FSRQs or BL Lacs. See Fig. 8a and Table 4 for details.

For $\log \nu_p$ vs α_{RO} (and α_{OX}), there are anti-correlations between them for the whole sample (Fig. 9a,b). It can be seen that the sources follow the blazar sequence with LSP FSRQs occupying the top left corner and HSP BLs at the bottom right corner, while ISP objects in the middle between LSPs and HSPs. From Fig. 8 by Fossati et al. (2008), it can be seen that there is also an anti-correlation between $\log \nu_p$ and α_{RO} for the whole sample. Our result is consistent with that reported. But if we consider the sub-samples separately, an anti-correlation for BL Lacs is found but there is a marginally positive correlation for FSRQs between $\log \nu_p$ and α_{OX} (See Table 4 and Fig. 9a). For HBLs, an anti-correlation between $\log \nu_p$ and α_{OX} is found but there is no correlation between $\log \nu_p$ and α_{RO} (See Table 4). For HBLs, when their ν_p moves to the higher frequency, their radio and optical emissions are from synchrotron emission following the same power law, thus the ratio (i.e. α_{RO}) of radio to optical emissions is fixed so that there is no correlation between α_{RO} and $\log \nu_p$. However, when their ν_p moves to the higher frequency, X-ray emissions increase and optical emissions decrease, so the ratio (i.e. α_{OX}) of optical to the X-ray emissions will become smaller and that results in an anti-correlation for α_{OX} against $\log \nu_p$. For low peak frequency FSRQs, when their peak moves to the lower frequency, their optical emissions will become weaker, but their X-rays are dominated by inverse Compton emission, thus the ratio (i.e. α_{OX}) of optical to X-rays will become smaller and that results in a positive correlation between α_{OX} and $\log \nu_p$. For LBLs, there are only 28 sources, linear regression analysis gives $r = 0.26$ and $p = 18.7\%$ for α_{OX} against $\log \nu_p$. It is similar to the case of FSRQs.

For α_{RO} vs α_{OX} (Fig. 10): Although there are substantial scattering in Fig. 10, it is clear that HBLs and FSRQs occupy different regions in the panel with IBLs and LBLs being bridge between them. There are anti-correlations between α_{RO} and α_{OX} for FSRQs, HBLs and LBLs with correlation coefficients being $r = -0.61$ ($p < 10^{-4}$), -0.54 ($p < 10^{-4}$) and -0.38 ($p = 4.4\%$) respectively.

Abdo et al. (2010a) investigated the correlation between α_{RO} and α_{OX} for Fermi blazars and found that Fermi FSRQs are located along the top-left/bottom-right band, while Fermi BL Lacs are in all parts of the plane. From Fig. 27 as in the reference, it can be seen that the HBLs also show a top-left/bottom-right tendency. Our anti-correlation results are consistent with those reported. In Fig. 7 by Ackermann et al. (2011b), it can be clearly seen that there are anti-correlations for LSP, ISP and HSP subclasses, and that LSP and HSP occupy different regions with ISP being the bridge connecting them. Our results are also consistent with those reported (Abdo et al. 2010a, Ackermann et al. 2011b).

5. Conclusions

In this paper, we compile multi-wavelength data for a sample of 1425 Fermi blazars to calculate their SEDs, and successfully achieve SEDs for 1392 blazars (461 FSRQs, 620 BLs and 311 BCUs). 999 objects (463 BLs, 461 FSRQs, and 75 BCUs) out of the 1392 blazars have available redshift. Synchrotron peak frequency ($\log \nu_p$), spectral curvature (P_1), peak flux ($\nu_p F_{\nu_p}$), and integrated flux (νF_{ν}) are obtained by fitting SED using a parabola function, $\log(\nu F_{\nu}) = P_1(\log \nu - P_2)^2 + P_3$. Monochromatic luminosity at radio 1.4 GHz, optical R band, X-ray at 1 keV and γ -ray at 1 GeV, peak luminosity, integrated luminosity and effective spectral indexes of radio to optical (α_{RO}), and optical to X-ray (α_{OX}) are calculated. We adopted the "Bayesian classification" to $\log \nu_p$ in the rest frame for 999 blazars with available redshift and the result shows that 3 components are the best to fit the $\log \nu_p$ distribution. Based on the proposed method we classified the subclasses of blazars using the acronyms of Abdo et al. (2010a). Some mutual correlations are also studied. Conclusions are drawn as follows:

1. Based on the "Bayesian classification", blazars can be classified into 3 subclasses and there is no ultra high peaked subclass. According to the acronyms of Abdo et al. (2010a), blazars can be classified as follows: LSPs: $\log \nu_p(\text{Hz}) \leq 14.0$, ISPs: $14.0 \text{ Hz} \leq \log \nu_p(\text{Hz}) \leq 15.3$, and HSPs: $\log \nu_p(\text{Hz}) \geq 15.3$. When averaged redshifts are adopted to BLs and UCBs without redshifts, we have 9 HSPs, 180 ISPs and 272 LSP for 461 FSRQs; 235 HSPs, 271 ISPs, and 114 LSPs for 620 BLs; and 106 HSPs, 107 ISPs, and 98 LSPs for 311 BCUs for the 1392 sources.

2. The γ -ray emissions are closely correlated with radio emissions, due to the facts that radio and γ -ray emissions are both beamed and that radio and γ -ray emissions are co-spatially produced in the jet. For BL Lacs, the fact that the emissions for the whole electromagnetic wavelength are from SSC results in the correlation between γ -ray and radio emissions, while for FSRQs, their γ -rays are from SSC and EC with the EC making main contribution, their radio emissions are strongly beamed, therefore, there is an apparent correlation between γ -rays and radio emissions. γ -ray luminosity is also correlated with both synchrotron peak luminosity and integrated luminosity.

3. The spectral curvature is anti-correlated with the synchrotron peak frequency, which suggests a stochastic acceleration.

4. For synchrotron peak frequency and peak luminosity, we found an anti-correlation for the whole sample but a positive correlation for HBLs. The anti-correlation is attributed to the fact that the lowly peaked sources are strongly beamed, and the highly peaked sources are weakly beamed. For HBLs, their boosting effects are weak, the peak frequency and peak luminosity correlation is intrinsic. If more particles are accelerated to higher energy, one can expect more luminous luminosity in higher frequency so that there is a positive correlation between the peak frequency and the peak luminosity.

5. There is a positive dependence of optical to X-ray spectral index (α_{ox}) on peak frequency for FSRQs and there is no correlation between radio to optical index (α_{ro}) and peak frequency for HBLs. For FSRQs, when its peak moves to the lower frequency side, the optical emissions decrease and the X-ray emissions will increase because of more contribution from inverse Compton emission and EC emissions, therefore the ratio of optical to X-ray emissions (α_{ox}) decreases and a positive tendency can be expected. For HBLs, when the peak moves to the higher frequency side, the radio and optical emissions follow the same power law, therefore the ratio of radio to optical emissions (α_{ro}) is a constant and there is no correlation between peak frequency ($\log \nu_p$) and effective spectral index (α_{RO}).

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Table 6. Sample for blazars

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
J0001.2-0748		IB	42.36/0.01	45.39/0.02		45.23/0.06	0.45/0.01		-0.12/0.01	14.37/0.12	45.35/0.03	45.71/0.05
J0001.4+2120	1.106	HF	42.97/0.01			45.70/0.11			-0.05/0.00	16.79/0.28	45.70/0.03	46.32/0.04
J0003.2-5246		HU			45.13/0.07	44.56/0.11			-0.05/0.01	17.89/0.81	45.15/0.14	45.76/0.14
J0003.8-1151	1.310	LU	43.44/0.01	45.54/0.04		45.59/0.12	0.62/0.01		-0.12/0.01	13.06/0.14	45.57/0.11	46.01/0.15
J0004.7-4740	0.880	IF		46.38/0.04		45.86/0.05		1.52/0.04	-0.12/0.01	14.14/0.09	46.20/0.06	46.59/0.09
J0006.4+3825	0.229	IF	41.98/0.01	44.53/0.04		44.41/0.06	0.54/0.01	1.40/0.04	-0.11/0.01	14.03/0.12	44.65/0.10	45.08/0.14
J0008.0+4713	0.280	IB	41.18/0.01		43.51/0.07	44.87/0.03			-0.12/0.00	14.52/0.07	44.46/0.04	44.83/0.06
J0008.6-2340	0.147	IB	40.38/0.01		43.72/0.05	43.08/0.12			-0.10/0.01	15.09/0.19	44.01/0.05	44.40/0.07
J0009.1+0630		LB	42.43/0.02	44.97/0.04		45.14/0.07	0.54/0.01		-0.09/0.03	13.69/0.51	44.42/0.17	44.93/0.24
J0009.6-3211	0.026	LU	39.87/0.01	44.48/0.04	41.53/0.13	41.91/0.10	0.17/0.01	2.09/0.06	-0.16/0.02	13.93/0.24	43.90/0.17	44.14/0.23
J0013.2-3954		LB	42.74/0.02	45.04/0.04		45.21/0.06	0.58/0.01		-0.19/0.01	12.95/0.14	45.53/0.09	45.79/0.13
J0013.9-1853	0.095	IB	39.90/0.02		43.72/0.03	42.88/0.11			-0.13/0.01	14.96/0.15	44.37/0.07	44.65/0.09
J0014.0-5025		HB			45.38/0.07	44.64/0.10			-0.05/0.00	18.55/0.33	45.38/0.06	45.94/0.07
J0015.7+5552		HU	41.90/0.01			44.93/0.09			-0.10/0.00	15.82/0.10	45.95/0.03	46.32/0.04
J0016.3-0013	1.577	IF	43.96/0.01	45.49/0.04	45.02/0.07	46.67/0.06	0.72/0.01	1.17/0.04	-0.09/0.01	13.58/0.10	45.58/0.04	46.12/0.06
J0017.2-0643		IU	41.94/0.01	44.82/0.04		44.87/0.09	0.48/0.01		-0.10/0.01	14.64/0.37	44.79/0.06	45.21/0.09
J0017.6-0512	0.227	IF	41.46/0.02	44.30/0.04	43.78/0.11	44.48/0.05	0.49/0.01	1.19/0.05	-0.11/0.01	14.48/0.13	44.63/0.15	45.02/0.21
J0018.4+2947	0.100	HB	40.00/0.01		43.54/0.07	42.84/0.13			-0.06/0.01	16.60/0.68	43.44/0.12	43.96/0.16
J0018.9-8152		HB			45.37/0.09	45.16/0.06			-0.05/0.01	17.16/0.46	45.33/0.07	45.90/0.07
J0019.1-5645		LU				44.88/0.09			-0.13/0.01	13.35/0.10	44.04/0.06	44.41/0.10
J0019.4+2021		LB	43.04/0.01	44.42/0.04		44.91/0.10	0.75/0.01		-0.17/0.01	12.84/0.09	45.19/0.06	45.50/0.10
J0021.6-2553		LB	41.88/0.01	45.06/0.14		45.14/0.06	0.43/0.03		-0.17/0.02	13.77/0.17	45.43/0.08	45.67/0.12
J0021.6-6835		IU			44.82/0.08	44.87/0.12			-0.09/0.01	14.90/0.13	45.47/0.04	45.92/0.05
J0022.1-1855		IB	41.39/0.02	45.60/0.02	44.56/0.11	45.13/0.05	0.24/0.01	1.38/0.05	-0.13/0.01	14.69/0.12	45.46/0.03	45.76/0.05
J0022.1-5141		HB			45.51/0.07	45.14/0.05			-0.09/0.00	15.86/0.16	45.69/0.03	46.07/0.05
J0022.5+0608		LB	42.57/0.01	44.64/0.04		45.68/0.03	0.63/0.01		-0.12/0.01	13.58/0.12	45.00/0.06	45.40/0.09
J0023.5+4454	1.062	LF	42.74/0.01	44.30/0.04		46.01/0.07	0.72/0.01		-0.13/0.02	12.78/0.24	44.73/0.16	45.15/0.22
J0024.4+0350	0.545	LF	41.35/0.02	44.76/0.04		45.01/0.09	0.38/0.01		-0.26/0.01	13.09/0.04	45.37/0.05	45.47/0.08
J0026.7-4603		HB			45.44/0.07	44.86/0.11			-0.07/0.00	16.34/0.09	45.47/0.02	45.94/0.03
J0028.8+1951		LU	42.43/0.01			45.03/0.09			-0.10/0.02	13.70/0.37	44.44/0.12	44.91/0.18
J0029.1-7045		LB				45.28/0.05			-0.20/0.03	13.30/0.16	45.53/0.18	45.73/0.45
J0030.2-1646		IU				44.50/0.09			-0.12	15.09	45.21	45.52/0.00
J0030.3-4223	0.495	IF		44.94/0.14	44.37/0.04	45.53/0.04		1.21/0.07	-0.12/0.01	14.14/0.08	45.43/0.04	45.82/0.07
J0030.7-0209		LU	42.15/0.01			45.36/0.05			-0.12/0.01	13.20/0.13	44.23/0.10	44.67/0.14

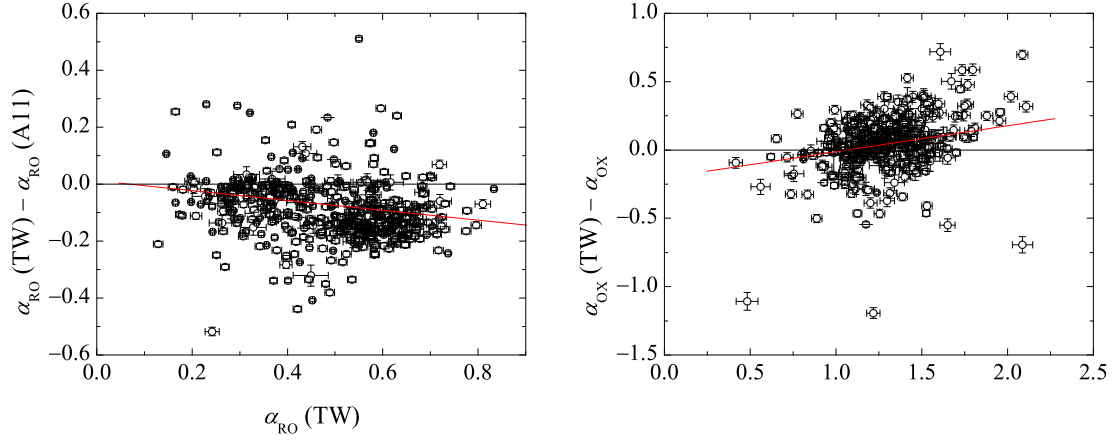


Fig. 13.— The plot of the difference between our spectral index and that from Ackermann et al. (2011a), against our spectral index. The $y = 0$ line stands for our spectral index is the same as that from Ackermann et al. (2011a), another line stands for the best fitting result. Left panel is for α_{ro} ; Right panel is for α_{ox} .

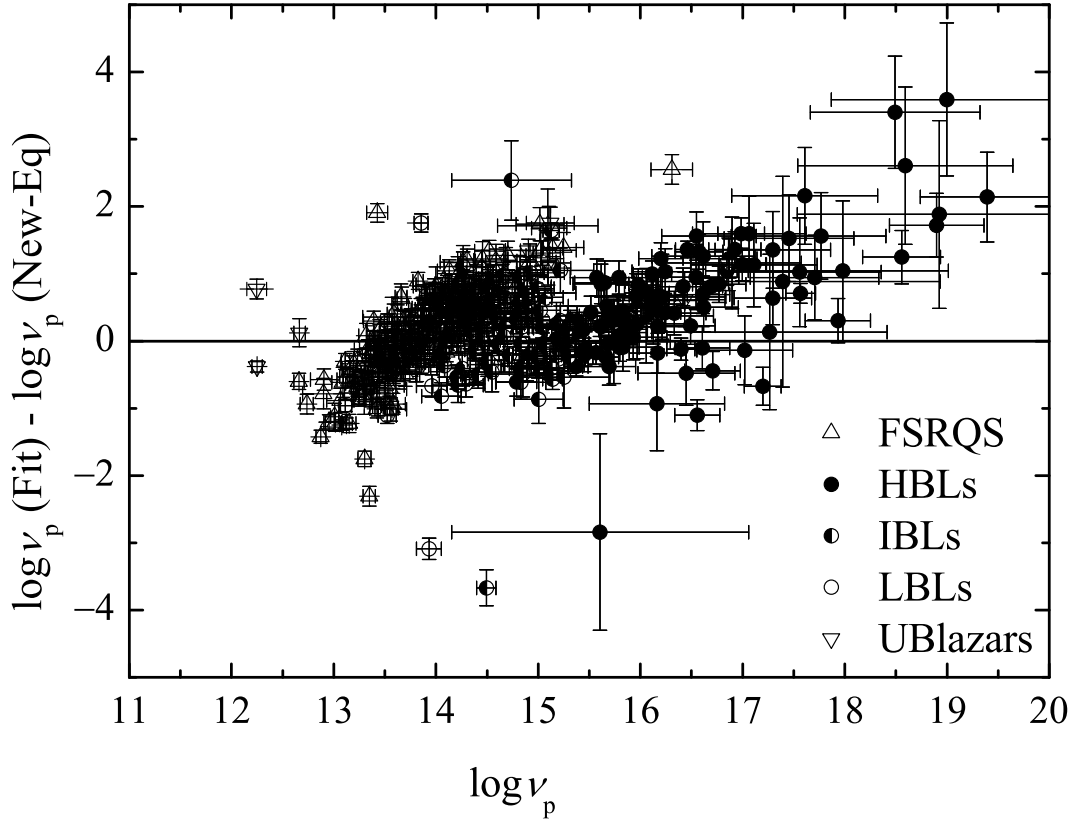


Fig. 14.— The plot of the difference between fitted peak frequency ($\log \nu_p^{\text{Fit}}$) and that estimated from the empirical equation (1), $\log \nu_p^{\text{Eq}}$, against that from SED fitting, $\log \nu_p^{\text{Fit}}$. The $y = 0$ line stands for $\log \nu_p^{\text{Fit}} = \log \nu_p^{\text{Eq}}$.

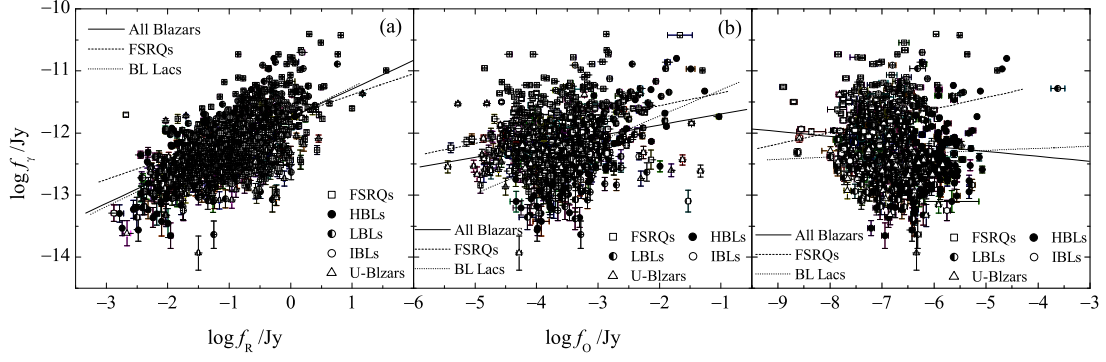


Fig. 15.— The relationship between the γ -ray flux density at 1 GeV and the lower energy bands. (a) For γ -ray vs radio band (1.4 GHz); (b) For γ -ray vs optical band (R band); and (c) For γ -ray vs X-ray band at 1 KeV.

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0032.3-2852	0.324	IB	41.74/0.02		43.16/0.07	44.17/0.11			-0.15/0.01	13.97/0.11	44.92/0.05	45.21/0.08
J0033.6-1921	0.610	HB	41.38/0.02		45.75/0.03	45.63/0.02			-0.11/0.00	15.74/0.09	45.96/0.04	46.29/0.06
J0035.2+1513	0.250	IB	40.57/0.02	45.09/0.04	44.14/0.07	44.27/0.05	0.18/0.01	1.35/0.04	-0.12/0.00	15.40/0.10	44.77/0.02	45.08/0.02
J0035.9+5949	0.086	HB	40.51/0.02	43.99/0.00	43.44/0.07	43.82/0.03	0.37/0.00	1.20/0.03	-0.04/0.01	18.46/0.83	44.21/0.10	44.82/0.12
J0037.9+1239	0.089	IB	40.25/0.01	44.38/0.04		43.49/0.05	0.25/0.01		-0.14/0.01	14.24/0.19	43.92/0.08	44.21/0.12
J0038.0+0012	0.740	LB	42.26/0.01	44.91/0.01		45.30/0.08	0.52/0.00		-0.25/0.02	12.89/0.07	45.70/0.16	45.84/0.26
J0038.0-2501	0.498	LF	42.54/0.01	45.27/0.04	44.77/0.07	45.07/0.07	0.51/0.01	1.18/0.04	-0.19/0.01	13.26/0.05	45.68/0.06	45.90/0.10
J0039.0-2218	0.064	IU	40.15/0.02			42.27/0.14			-0.15/0.01	14.78/0.22	44.14/0.09	44.39/0.14
J0039.1-0939	2.102	LF	43.34/0.01	45.83/0.02		46.57/0.12	0.55/0.01		-0.16/0.03	12.99/0.19	45.82/0.23	46.13/0.34
J0040.3+4049		HU	41.65/0.02	44.39/0.04	45.05/0.01	43.45/0.27	0.50/0.01	0.76/0.02	-0.09/0.01	15.82/0.27	45.31/0.12	45.70/0.17
J0040.5-2339	0.213	IU	40.88/0.02		42.80/0.07	43.55/0.13			-0.15/0.01	14.12/0.13	44.48/0.07	44.75/0.10
J0041.9+3639		HB	41.12/0.02	45.51/0.04	44.72/0.07	44.63/0.13	0.72/0.01		-0.09/0.01	15.81/0.29	45.09/0.09	45.50/0.12
J0042.0+2318	1.426	LF	43.95/0.01			46.12/0.09			-0.12/0.03	13.11/0.30	45.77/0.17	46.19/0.27
J0043.5-0444		HU	41.44/0.02		45.01/0.06	44.40/0.14			-0.06/0.01	16.82/0.79	45.13/0.13	45.63/0.17
J0043.7-1117		HU	41.36/0.02		44.46/0.12	44.33/0.12			-0.11/0.00	15.13/0.06	45.08/0.04	45.45/0.05
J0043.8+3425	0.966	IF	42.48/0.01			46.11/0.03			-0.10	14.28	44.98	45.44/0.00
J0045.2-3704		LU	42.49/0.01		44.83/0.07	45.25/0.06	0.35/0.01	1.19/0.04	-0.15/0.04	13.34/0.38	44.76/0.23	45.08/0.41
J0045.3+2126		HB	41.74/0.02	45.36/0.04		45.38/0.04			-0.08/0.01	16.38/0.23	45.64/0.05	46.09/0.07
J0045.7+1217		HB	42.06/0.02			45.25/0.05			-0.08/0.02	15.38/0.56	44.93/0.10	45.42/0.14
J0046.7-8419	1.032	LF	43.29/0.04			45.89/0.11			-0.12/0.02	12.93/0.15	45.18/0.16	45.61/0.23
J0048.0+2236	1.161	LF	42.59/0.01	45.79/0.04	43.02/0.07	46.27/0.05	0.42/0.01		-0.21/0.08	13.29/0.40	45.87/0.55	46.05/0.93
J0048.0+3950	0.252	IB	41.27/0.02			44.10/0.07			-0.14/0.01	14.11/0.15	44.64/0.06	44.95/0.09
J0049.4-5401		HU				44.74/0.09			-0.06/0.00	17.53/0.27	45.74/0.08	46.23/0.10
J0049.7+0237	1.440	LB	43.48/0.01	45.65/0.04		46.39/0.05	0.61/0.01		-0.14/0.01	13.48/0.14	45.98/0.08	46.33/0.12
J0049.8-5737	1.797	IF		46.89/0.04	46.10/0.12	46.55/0.07		1.29/0.06	-0.09/0.01	14.05/0.10	46.56/0.06	47.07/0.07
J0050.0-4458	0.121	LU		44.48/0.04	43.74/0.07	43.36/0.10		1.27/0.04	-0.20/0.02	13.44/0.13	44.36/0.09	44.56/0.23
J0050.4-0449	0.920	LF	42.88/0.01	45.37/0.04		45.83/0.07	0.55/0.01		-0.15/0.02	13.53/0.16	45.70/0.11	46.01/0.18
J0050.6-0929	0.635	IB	43.13/0.03	45.94/0.04	45.19/0.05	46.03/0.02	0.49/0.01	1.28/0.03	-0.09/0.00	14.60/0.09	45.99/0.03	46.46/0.04
J0051.0-0649	1.975	LF	44.06/0.01	46.02/0.04	45.51/0.07	46.88/0.04	0.65/0.01	1.19/0.04	-0.15/0.01	12.98/0.13	46.45/0.08	46.79/0.12
J0051.2-6241		HU		45.45/0.02	45.16/0.06	45.06/0.04		1.11/0.03	-0.09/0.00	15.60/0.10	45.49/0.02	45.88/0.03
J0054.8-2455		HB	41.43/0.02	45.44/0.04	44.96/0.06	45.08/0.05	0.28/0.01	1.18/0.04	-0.11/0.01	15.26/0.22	45.61/0.05	45.95/0.07
J0056.3-0935	0.103	IB	40.81/0.02	44.44/0.04	43.66/0.04	43.22/0.07	0.34/0.01	1.29/0.03	-0.11/0.01	14.51/0.28	44.12/0.06	44.51/0.07
J0056.3-2116		IB	42.00/0.01			44.98/0.06			-0.12/0.01	14.54/0.10	45.47/0.10	45.80/0.14
J0057.9-0542	1.246	LF	43.60/0.01			45.93/0.10			-0.12/0.02	13.62/0.22	45.87/0.12	46.29/0.18
J0058.0-3233	1.370	IB	43.08/0.01	45.22/0.04		46.38/0.04	0.61/0.01		-0.13/0.01	14.15/0.17	46.44/0.04	46.77/0.06

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0058.3+3315	1.369	IF	43.02/0.01			46.21/0.07			-0.07/0.01	14.75/0.47	45.43/0.06	45.97/0.08
J0059.1-5701	0.018	LU		42.22/0.04	41.80/0.09	41.94/0.06		1.16/0.05	-0.15/0.01	13.43/0.14	42.45/0.07	42.77/0.14
J0059.2-0152	0.144	IB	40.06/0.02		43.34/0.09	43.20/0.12			-0.13/0.00	14.79/0.04	44.24/0.02	44.53/0.02
J0059.6+0003	0.719	IF	43.65/0.01	45.84/0.13	44.86/0.11	45.25/0.11	0.60/0.03	1.36/0.09	-0.06/0.00	14.87/0.17	45.65/0.03	46.27/0.03
J0102.3+4217	0.874	LF	42.06/0.02			45.89/0.06			-0.24/0.02	13.10/0.07	45.85/0.17	45.99/0.26
J0103.4+5336		HB	41.53/0.01			45.16/0.06			-0.07/0.02	16.51/0.95	45.37/0.16	45.85/0.20
J0105.1-2415	1.747	LF	43.38/0.02	45.51/0.04		46.71/0.06	0.61/0.01		-0.21/0.07	12.93/0.23	46.28/0.51	46.49/0.82
J0105.3+3928	0.083	HB	40.27/0.01			43.18/0.07			-0.05/0.06	15.53/4.13	42.23/0.19	42.90/0.20
J0107.0-1208		HU	41.75/0.01			44.79/0.10			-0.08/0.01	15.65/0.48	45.05/0.09	45.50/0.12
J0108.5-0035	1.375	IF	43.78/0.01	46.32/0.00		45.97/0.11	0.54/0.00		-0.08/0.03	14.67/0.94	46.13/0.08	46.67/0.11
J0108.7+0134	2.099	IF	44.57/0.01	46.06/0.04	45.69/0.10	47.66/0.02	0.73/0.01	1.14/0.05	-0.09/0.01	13.53/0.10	46.47/0.07	47.00/0.09
J0109.1+1816	0.145	HB	40.76/0.01		43.89/0.07	43.70/0.06			-0.11/0.01	15.25/0.20	44.45/0.08	44.81/0.11
J0109.8+6132	0.783	IF	42.81/0.01			46.39/0.02			-0.10/0.01	15.02/0.06	46.25/0.08	46.65/0.11
J0109.9-4020	0.313	HB	41.26/0.04		44.81/0.03	43.95/0.10			-0.05/0.01	17.96/0.76	44.78/0.13	45.38/0.17
J0110.2+6806	0.290	IB	42.66/0.02		44.18/0.07	44.88/0.03			-0.07/0.03	15.03/0.88	44.71/0.28	45.26/0.45
J0110.9-1254	0.234	HB	40.48/0.02		44.68/0.04	43.81/0.11			-0.08/0.00	16.56/0.15	44.66/0.04	45.10/0.05
J0111.5+0535	0.346	HB	40.81/0.02		44.32/0.07	44.14/0.12			-0.09/0.01	15.67/0.18	44.59/0.05	45.00/0.07
J0112.1+2245	0.265	IB	41.94/0.01	45.66/0.04	47.07/0.13	45.40/0.01	0.33/0.01	0.48/0.06	-0.13/0.01	14.39/0.10	45.40/0.07	45.73/0.10
J0112.8+3207	0.603	IF	42.93/0.01			46.05/0.02			-0.06/0.02	14.87/0.86	45.13/0.12	45.73/0.16
J0113.0-3554	1.220	LF	42.97/0.01	45.13/0.04		45.97/0.09	0.61/0.01		-0.15/0.02	13.43/0.19	45.74/0.16	46.05/0.23
J0113.4+4948	0.389	IF	42.52/0.01	44.86/0.03	44.10/0.11	44.99/0.05	0.58/0.01	1.28/0.05	-0.09/0.01	14.01/0.12	44.80/0.09	45.31/0.12
J0114.8+1326	2.025	IB	42.93/0.01	46.91/0.01		46.85/0.04	0.28/0.00		-0.18/0.03	14.03/0.32	46.83/0.15	47.04/0.23
J0115.7+0356		HB	42.04/0.01	45.36/0.02		45.45/0.04	0.40/0.01		-0.07/0.01	15.86/0.50	45.36/0.07	45.85/0.09
J0115.8+2519	0.358	HB	41.20/0.01	44.94/0.02	44.45/0.07	44.87/0.04	0.33/0.01	1.18/0.03	-0.09/0.01	15.61/0.21	44.79/0.04	45.21/0.05
J0116.0-1134	0.670	IF	43.44/0.01	45.36/0.04	44.91/0.10	45.76/0.04	0.65/0.01	1.17/0.05	-0.08/0.01	14.29/0.16	45.60/0.05	46.15/0.07
J0116.2-2744		HU	41.20/0.02	44.63/0.05	44.78/0.07	44.67/0.10	0.38/0.01	0.94/0.04	-0.07/0.01	16.68/0.37	44.84/0.07	45.34/0.09
J0117.8-2113	1.490	LF	43.29/0.01	45.29/0.04		46.51/0.06	0.64/0.01		-0.21/0.03	12.76/0.08	46.11/0.18	46.34/0.28
J0118.8-2142	1.165	LF	43.33/0.01	45.29/0.04	44.50/0.07	46.79/0.02	0.65/0.01	1.29/0.04	-0.17/0.01	13.18/0.07	46.15/0.07	46.43/0.11
J0118.9-1457	0.115	HB	39.33/0.04	43.50/0.14	43.24/0.07	43.07/0.09	0.24/0.03	1.10/0.08	-0.10/0.02	15.69/0.55	43.39/0.10	43.78/0.13
J0120.4-2700	0.559	IB	43.00/0.01	46.05/0.04	44.43/0.09	45.80/0.02	0.45/0.01	1.60/0.05	-0.12/0.00	14.10/0.07	45.92/0.04	46.30/0.06
J0122.8+3423	0.272	HB	41.03/0.02	44.38/0.03	45.15/0.07	43.70/0.10	0.39/0.01	0.72/0.03	-0.04/0.01	19.29/0.66	45.26/0.12	45.86/0.14
J0123.7-2312	0.404	HB	41.17/0.01		45.15/0.04	44.75/0.06			-0.06/0.01	17.18/0.43	44.96/0.08	45.49/0.10
J0125.2-0627	2.117	IB	42.78/0.01	46.14/0.02		46.46/0.09	0.39/0.01		-0.13/0.02	14.29/0.25	46.17/0.03	46.49/0.04
J0125.4-2548		LB	42.26/0.01			45.04/0.07			-0.15/0.02	13.38/0.15	44.95/0.13	45.26/0.20
J0126.1-2227	0.720	IF	43.04/0.01	45.31/0.14	44.20/0.07	45.59/0.06	0.59/0.03	1.41/0.07	-0.07/0.01	14.86/0.49	45.36/0.10	45.93/0.13

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0127.1-0818	0.362	LB	41.69/0.01	44.41/0.04		44.74/0.06	0.51/0.01		-0.22/0.02	13.04/0.08	44.85/0.11	45.03/0.18
J0127.9+2551	2.358	IF	44.24/0.01	46.73/0.04	45.90/0.07	47.01/0.14	0.55/0.01	1.30/0.04	-0.07/0.01	14.72/0.20	46.37/0.06	46.97/0.08
J0128.5+4430	0.228	LF	40.78/0.01			44.20/0.07			-0.13/0.01	13.82/0.08	43.54/0.03	43.90/0.04
J0130.8+1441	1.626	LF	43.84/0.02	45.62/0.01		46.28/0.13	0.68/0.01		-0.11/0.01	13.47/0.14	45.81/0.06	46.26/0.09
J0131.2+6120		HB	41.33/0.02		46.21/0.07	45.51/0.04			-0.07/0.01	17.25/0.51	46.16/0.04	46.59/0.05
J0131.3+5548	0.036	IU	39.83/0.01			42.16/0.13			-0.15/0.01	14.34/0.16	43.95/0.08	44.20/0.12
J0132.5-0802	0.149	IU	41.31/0.01		43.75/0.05	43.19/0.13			-0.12/0.01	14.80/0.23	44.67/0.08	45.00/0.12
J0132.6-1655	1.020	LF	43.48/0.01	46.72/0.04	44.64/0.07	46.49/0.03	0.41/0.01	1.77/0.04	-0.14/0.01	13.55/0.09	46.27/0.07	46.62/0.10
J0133.2-5159	0.020	LU		41.65/0.04	41.81/0.08	41.62/0.12		0.94/0.04	-0.15/0.01	12.99/0.08	42.24/0.07	42.59/0.13
J0133.3+4324		LU	42.15/0.01	44.58/0.04		44.89/0.10	0.56/0.01		-0.13/0.02	13.61/0.33	44.85/0.14	45.22/0.19
J0134.3-3842	2.140	IF	43.93/0.01	46.61/0.04	45.76/0.07	46.51/0.08	0.51/0.01	1.31/0.04	-0.15/0.01	13.60/0.13	46.79/0.06	47.08/0.10
J0134.5+2638		IU	41.45/0.01			45.14/0.05			-0.13/0.00	14.97/0.01	45.73/0.00	46.02/0.00
J0136.5+3905		HB	41.82/0.01		45.45/0.07	45.78/0.02			-0.08/0.01	16.27/0.40	45.96/0.12	46.39/0.16
J0137.0+4752	0.859	LF	43.47/0.01	45.12/0.03	45.43/0.05	46.55/0.02	0.70/0.01	0.89/0.03	-0.19/0.01	12.69/0.05	46.14/0.04	46.41/0.06
J0137.6-2430	0.838	IF	43.46/0.02	46.05/0.04	45.32/0.08	46.04/0.04	0.53/0.01	1.27/0.05	-0.09/0.01	14.21/0.11	46.09/0.08	46.57/0.10
J0137.8+5813		HU	42.20/0.02			45.31/0.05			-0.05	18.00	45.91	46.48/0.00
J0141.4-0929	0.733	IB	43.27/0.12	45.66/0.04	44.40/0.07	45.96/0.03	0.57/0.03	1.47/0.04	-0.11/0.01	13.82/0.13	45.72/0.05	46.14/0.08
J0144.6+2705		LB	42.38/0.01			46.00/0.02			-0.16/0.02	13.60/0.17	45.40/0.09	45.67/0.14
J0145.1-2732	1.155	IF	43.63/0.01	46.05/0.04	45.33/0.04	46.58/0.03	0.56/0.01	1.27/0.03	-0.10/0.01	14.00/0.12	46.03/0.04	46.48/0.06
J0146.4-6746		HU				44.93/0.08			-0.09/0.00	15.95/0.18	45.47/0.05	45.89/0.07
J0147.0-5204	0.098	IU	42.44/0.01		43.06/0.12	43.19/0.08			-0.11/0.03	14.38/0.68	44.12/0.13	44.50/0.22
J0148.6+0128	0.940	LB				45.62/0.07			-0.15/0.04	13.44/0.28	45.21/0.27	45.53/0.39
J0150.5-5447		HU				44.59/0.11			-0.06/0.01	17.42/0.57	45.61/0.15	46.11/0.18
J0151.0+0537		LU	42.21/0.01	44.49/0.12		44.82/0.11	0.59/0.03		-0.18/0.04	13.20/0.19	44.79/0.26	45.05/0.45
J0151.0-3609	0.681	LU	41.83/0.01			45.13/0.11			-0.14/0.04	12.88/0.27	43.94/0.26	44.31/0.38
J0151.6+2205	1.320	LF	43.80/0.01	45.67/0.04		46.23/0.09	0.66/0.01		-0.13/0.01	13.14/0.19	46.09/0.09	46.48/0.13
J0152.2+3707	0.761	LU	42.83/0.01			45.33/0.09			-0.09/0.03	13.63/0.47	44.67/0.20	45.20/0.28
J0152.6+0148	0.080	IB	40.07/0.01		42.98/0.07	43.20/0.06			-0.13/0.01	14.98/0.14	44.23/0.08	44.52/0.11
J0152.8+7517		HB	41.38/0.02		44.70/0.07	44.73/0.09			-0.09/0.01	15.30/0.22	45.10/0.07	45.52/0.09
J0153.4+7114	0.022	HU	39.90/0.01			41.38/0.16			-0.08/0.02	15.61/0.87	43.72/0.23	44.17/0.28
J0154.0+0824	0.681	IB	42.52/0.01	45.62/0.12		45.66/0.03	0.44/0.02		-0.16/0.02	13.97/0.22	45.88/0.09	46.14/0.13
J0154.9+4433		HB	41.62/0.01			45.05/0.07			-0.10/0.03	15.20/0.84	45.24/0.15	45.62/0.21
J0156.3+3913		LU	42.17/0.01		44.41/0.10	45.23/0.06			-0.13/0.01	13.70/0.13	44.89/0.06	45.24/0.09
J0156.9-4742		IU				44.46/0.14			-0.11	14.93	45.15	45.50/0.00
J0157.0-5301		HB		45.27/0.02	45.41/0.04	44.98/0.06		0.95/0.02	-0.07/0.01	16.23/0.36	45.30/0.06	45.79/0.08

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0157.9-4615	2.287	LF		45.21/0.04	45.16/0.12	46.86/0.07		1.02/0.06	-0.16/0.01	12.78/0.04	45.77/0.04	46.10/0.07
J0158.6-3931		IB	42.16/0.01	45.80/0.04	43.81/0.07	45.26/0.05	0.34/0.01	1.73/0.04	-0.14/0.01	14.08/0.08	45.53/0.04	45.84/0.06
J0159.4+1046	0.195	IB	40.75/0.01		43.79/0.07	44.23/0.05			-0.12/0.01	15.02/0.17	44.59/0.05	44.91/0.07
J0159.8-2741		IB	42.06/0.01	45.41/0.02	44.26/0.07	44.99/0.07	0.40/0.01	1.43/0.03	-0.13/0.01	14.49/0.08	45.43/0.03	45.76/0.04
J0200.9-6635		LU				44.93/0.08			-0.18/0.02	12.92/0.10	44.66/0.17	44.94/0.36
J0202.3+0851	0.550	HF	42.14/0.01		44.49/0.07	44.74/0.11			-0.05/0.03	15.64/2.03	44.20/0.11	44.87/0.20
J0202.5+4206		LB	42.26/0.01	44.81/0.04		45.13/0.07	0.54/0.01		-0.19/0.01	13.09/0.05	45.25/0.05	45.49/0.07
J0203.6+3043	0.761	LB	42.53/0.01	45.09/0.04		46.15/0.02	0.54/0.01		-0.19/0.01	13.09/0.05	45.57/0.05	45.80/0.07
J0204.0+7234		IB	42.40/0.01	46.48/0.01		45.43/0.05	0.26/0.00		-0.10/0.01	14.82/0.44	45.68/0.10	46.10/0.14
J0204.2+2420		IU	42.26/0.02			44.48/0.13			-0.13/0.04	13.85/0.66	45.15/0.19	45.51/0.27
J0204.8+3212	1.466	IF	43.69/0.01	46.36/0.04	45.19/0.07	46.54/0.08	0.52/0.01	1.43/0.04	-0.12/0.01	14.26/0.16	46.87/0.14	47.25/0.19
J0205.0+1510	0.405	LU	43.33/0.01	43.54/0.04	42.53/0.07	45.03/0.06	0.96/0.01	1.38/0.04	-0.13/0.01	12.10/0.10	44.53/0.04	44.99/0.06
J0205.2-1700	1.740	IF	44.09/0.01	46.61/0.04	45.66/0.11	47.01/0.04	0.55/0.01	1.35/0.06	-0.11/0.01	13.86/0.13	46.64/0.06	47.05/0.08
J0206.4-1150	1.663	IF	43.20/0.01	45.64/0.04	45.00/0.07	46.62/0.05	0.56/0.01	1.24/0.04	-0.09/0.01	14.34/0.20	45.79/0.09	46.28/0.11
J0207.9-3846	0.254	LU	41.75/0.01	44.30/0.07		44.15/0.10	0.54/0.02		-0.16/0.02	13.67/0.19	44.80/0.08	45.08/0.13
J0208.0-6838		IB				45.09/0.08			-0.08/0.01	14.28/0.34	44.62/0.06	45.18/0.07
J0208.6+3522	0.318	HB	40.20/0.05		44.22/0.00	43.89/0.13			-0.09/0.01	16.44/0.24	44.62/0.07	45.02/0.09
J0209.4-5229		HB		45.68/0.02	45.87/0.03	45.40/0.03		0.93/0.02	-0.08/0.01	16.13/0.21	45.80/0.05	46.23/0.07
J0209.5+4449		HB	41.53/0.02		45.29/0.07	44.83/0.09			-0.07/0.01	16.20/0.69	45.25/0.13	45.72/0.16
J0210.7-5101	1.003	IU	44.08/0.04	46.95/0.04	45.43/0.09	46.70/0.02	0.48/0.02	1.56/0.05	-0.09/0.01	14.60/0.08	46.74/0.07	47.23/0.10
J0211.2+1051	0.200	IB	41.60/0.01	45.15/0.03		44.97/0.02	0.36/0.01		-0.14/0.02	14.75/0.28	45.92/0.04	46.18/0.05
J0211.2-0649		LU	41.31/0.02		44.61/0.04	44.73/0.10			-0.22/0.02	13.62/0.17	45.59/0.10	45.73/0.16
J0212.8-3504	0.393	HB	40.99/0.02		44.91/0.07	44.59/0.07			-0.07/0.01	16.21/0.37	44.52/0.07	45.00/0.09
J0213.0+2245	0.459	HB	41.68/0.01		44.91/0.07	45.10/0.05			-0.08/0.01	15.64/0.37	45.09/0.06	45.53/0.08
J0214.4+5143	0.049	HB	40.31/0.01	44.40/0.02	42.77/0.07	42.57/0.09	0.26/0.01	1.60/0.03	-0.10/0.01	15.55/0.26	44.12/0.11	44.48/0.16
J0214.7-5823		LU				44.88/0.10			-0.23/0.04	13.26/0.22	45.52/0.21	45.66/0.61
J0217.0-6635		HB		45.26/0.04	45.28/0.05	45.11/0.05		0.99/0.04	-0.08/0.01	15.60/0.40	45.35/0.06	45.81/0.08
J0217.1-0833	0.607	LF	42.72/0.01	44.55/0.01		45.01/0.10	0.67/0.00		-0.13/0.01	12.98/0.08	44.92/0.07	45.32/0.10
J0217.2+0837	1.400	IB	43.33/0.01	47.47/0.03	45.39/0.07	46.53/0.04	0.25/0.01	1.77/0.04	-0.14/0.01	14.21/0.15	46.91/0.10	47.20/0.14
J0217.5+7349	2.367	LF	44.60/0.01	46.85/0.01	46.22/0.10	47.47/0.06	0.59/0.00	1.23/0.04	-0.14/0.01	13.35/0.22	46.95/0.11	47.31/0.17
J0217.8+0143	1.715	IF	43.87/0.01	46.06/0.04	45.76/0.04	47.26/0.02	0.60/0.01	1.11/0.03	-0.09/0.01	14.66/0.16	46.83/0.09	47.27/0.12
J0218.9+3642		IU	42.08/0.01			45.51/0.05			-0.08/0.01	14.61/0.30	44.36/0.07	44.88/0.10
J0221.1+3556	0.685	LF	43.44/0.01	44.67/0.04	44.90/0.09	46.33/0.02	0.78/0.01	0.91/0.05	-0.14/0.01	12.51/0.06	44.99/0.04	45.42/0.07
J0222.1-1616	0.698	IF	43.00/0.01	45.25/0.04	44.22/0.07	45.56/0.07	0.59/0.01	1.38/0.04	-0.07/0.01	14.47/0.18	45.02/0.06	45.61/0.07
J0222.6+4301	0.444	IB	43.18/0.01	46.60/0.04	44.90/0.15	46.25/0.01	0.38/0.01	1.63/0.07	-0.09/0.01	14.76/0.14	45.94/0.08	46.39/0.11

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0222.9-1117	0.042	IB	38.86/0.02		41.90/0.12	42.16/0.11			-0.10/0.01	15.16/0.26	42.35/0.07	42.76/0.10
J0224.1-7941		HU				44.95/0.08			-0.08/0.01	15.63/0.38	45.17/0.09	45.61/0.13
J0226.3+0941	2.605	IF	43.89/0.01			46.95/0.06			-0.09/0.03	14.60/0.97	46.69/0.09	47.15/0.12
J0226.5-4442		HU			45.09/0.06	44.91/0.06			-0.07/0.01	16.87/0.51	45.13/0.09	45.59/0.13
J0227.2+0201	0.457	HB	41.41/0.01		45.63/0.07	44.91/0.06	0.52/0.01	0.42/0.04	-0.09/0.04	15.44/1.45	44.49/0.18	44.94/0.20
J0228.3-5545	2.464	LF				47.21/0.04			-0.12/0.02	13.41/0.27	46.07/0.11	46.50/0.15
J0228.7-3106		IU	41.96/0.01			44.61/0.12			-0.08/0.01	14.86/0.23	44.55/0.11	45.04/0.16
J0229.3-3643	2.115	IF	43.23/0.01		45.61/0.05	47.09/0.05			-0.15/0.02	14.21/0.12	47.22/0.32	47.49/0.44
J0230.6-5757	0.032	LB				41.62/0.18			-0.29/0.06	13.34/0.24	44.35/0.30	44.38/1.09
J0230.8+4032	1.019	LF	43.21/0.01			46.26/0.04	0.58/0.01		-0.15/0.01	13.28/0.06	45.77/0.04	46.09/0.06
J0232.8+2016	0.139	HB	40.69/0.02		44.76/0.01	43.54/0.09	0.45/0.01	0.61/0.01	-0.09/0.01	16.50/0.22	44.84/0.08	45.23/0.11
J0236.7-6136	0.465	LF			44.62/0.13	45.52/0.03		1.14/0.06	-0.11/0.01	13.62/0.12	44.84/0.06	45.27/0.09
J0237.5-3603	0.411	HB	41.18/0.02		44.79/0.04	44.55/0.07			-0.09/0.01	15.57/0.17	44.91/0.04	45.32/0.06
J0237.9+2848	1.213	LF	44.05/0.01		45.47/0.10	47.22/0.01	0.57/0.01	1.34/0.05	-0.13/0.01	13.59/0.06	46.75/0.07	47.10/0.10
J0238.3-3904	0.200	IB	40.91/0.01		43.42/0.09	43.66/0.09			-0.08/0.00	15.11/0.13	43.82/0.03	44.30/0.04
J0238.4-3117	0.232	HB	41.08/0.01		44.54/0.03	44.21/0.05	0.32/0.01	1.12/0.02	-0.10/0.00	15.35/0.08	44.83/0.02	45.23/0.02
J0238.6+1636	0.940	LB	43.43/0.01		45.89/0.03	46.89/0.01	0.45/0.01	1.22/0.02	-0.17/0.01	13.24/0.09	46.55/0.05	46.82/0.08
J0241.3+6542		HU	42.25/0.01			45.33/0.05			-0.09/0.01	15.41/0.46	45.66/0.11	46.09/0.15
J0242.3+1059	2.680	LF	44.53/0.04		46.21/0.03	47.13/0.08	0.70/0.01		-0.11/0.01	13.25/0.27	46.37/0.11	46.83/0.16
J0243.5+7119		IB	42.44/0.04			45.28/0.06			-0.11/0.03	14.81/0.83	45.63/0.12	46.00/0.17
J0244.4-8224		HU				44.95/0.13			-0.09/0.02	15.14/0.38	45.12/0.18	45.55/0.27
J0244.8-5818	0.265	HB			44.95/0.04	43.91/0.08			-0.07/0.01	16.20/0.27	44.92/0.07	45.40/0.09
J0245.4+2410	2.243	IF	43.76/0.04		45.70/0.11	47.13/0.06			-0.07/0.01	14.58/0.54	45.86/0.13	46.46/0.16
J0245.9-4651	1.385	IF			45.58/0.12	47.12/0.02			-0.08/0.01	14.09/0.22	45.74/0.05	46.29/0.06
J0250.6+1713	1.100	HF				45.69/0.09			-0.12/0.00	15.33/0.11	46.49/0.03	46.80/0.07
J0251.5-5959	1.373	LF			45.51/0.04	45.90/0.10			-0.14/0.01	13.32/0.07	45.75/0.04	46.10/0.07
J0252.3+3830	1.122	HF	43.53/0.04			45.75/0.12			-0.06/0.00	15.05/0.22	45.72/0.05	46.31/0.06
J0252.8-2218	1.427	LF				47.14/0.02			-0.14/0.03	12.90/0.25	45.60/0.20	46.00/0.32
J0253.0-0125		LB				44.78/0.10			-0.21/0.03	13.57/0.16	44.96/0.18	45.12/81.82
J0253.1-5438	0.539	LF	42.86/0.04		44.93/0.08	45.01/0.08	0.52/0.02	1.21/0.05	-0.17/0.01	13.36/0.06	46.05/0.04	46.32/0.06
J0253.5+3216		LU				45.04/0.06			-0.25/0.02	12.97/0.05	45.08/0.08	45.22/0.24
J0256.3+0335		HU	42.36/0.04			44.69/0.11			-0.05	17.66	45.76	46.35/0.00
J0257.8-1216	1.391	LF			46.16/0.04	46.13/0.09			-0.18/0.05	13.28/0.21	46.05/0.27	46.29/0.62
J0258.0+2030		IB	42.03/0.01			44.98/0.10			-0.10/0.01	15.08/0.13	45.42/0.05	45.82/0.07
J0259.5+0746	0.893	IF	43.35/0.01		44.17/0.09	45.89/0.05	0.45/0.01	1.80/0.04	-0.09/0.01	13.85/0.12	45.45/0.08	45.94/0.11

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0301.4-1652		IU				44.81/0.10			-0.16/0.03	13.90/0.33	45.47/0.13	45.72/0.29
J0301.8-7157		IU				45.12/0.08			-0.12/0.02	13.81/0.31	44.97/0.09	45.37/0.14
J0302.5-7915	1.115	LF		44.96/0.04		46.00/0.08			-0.16/0.02	13.18/0.15	45.46/0.17	45.76/0.33
J0303.0+3150		LU	42.58/0.04			44.92/0.11			-0.16	12.90	45.41	45.73/0.00
J0303.4-2407	0.260	IB			44.49/0.03	45.21/0.02			-0.08/0.01	14.97/0.23	44.99/0.08	45.49/0.11
J0303.6+4716	0.475	IB	42.95/0.04	46.28/0.03	43.89/0.07	45.62/0.03	0.40/0.01	1.88/0.03	-0.11/0.01	14.10/0.19	45.77/0.08	46.17/0.11
J0303.7-6211	1.351	LF	44.18/0.04	46.06/0.04	45.81/0.11	46.50/0.04	0.66/0.02	1.09/0.06	-0.16/0.01	12.97/0.04	46.25/0.04	46.59/0.06
J0304.3-2836		HB		44.66/0.05	45.27/0.05	44.15/0.16		0.78/0.03	-0.06/0.01	17.56/0.53	45.10/0.10	45.63/0.12
J0305.2-1607		IU	42.92/0.04			44.35/0.13			-0.05	15.02	45.03	45.73/0.00
J0309.0+1029	0.863	IF	43.12/0.04	44.94/0.03	44.92/0.11	46.25/0.03	0.67/0.01	1.01/0.05	-0.15/0.01	14.04/0.07	46.68/0.08	46.96/0.11
J0309.5-0749		LB		45.33/0.01		44.87/0.09			-0.21/0.03	13.67/0.16	45.43/0.12	45.58/0.35
J0309.9-6057	1.480	LF	43.87/0.04	46.03/0.04	45.05/0.07	46.82/0.03	0.61/0.02	1.36/0.04	-0.15/0.01	13.01/0.06	46.20/0.04	46.53/0.06
J0310.4-5015		IU				44.57/0.09			-0.12/0.00	14.91/0.06	44.87/0.04	45.21/0.07
J0310.8+3814	0.816	LF		45.10/0.03		45.69/0.07			-0.20/0.01	12.82/0.06	45.60/0.09	45.83/0.20
J0312.7+0133	0.664	LF	42.87/0.04	45.30/0.03		45.64/0.05	0.56/0.01		-0.16/0.01	13.34/0.09	45.55/0.08	45.85/0.13
J0312.7+3613	0.072	IB	40.41/0.04		42.69/0.07	43.03/0.08			-0.14/0.02	14.63/0.30	44.06/0.11	44.34/0.17
J0314.3-5103		LB		45.23/0.02		45.28/0.06			-0.16/0.02	13.76/0.19	45.18/0.09	45.46/0.20
J0315.5-1026	1.565	LF				46.28/0.09			-0.14/0.09	13.35/0.58	45.69/0.58	46.03/1.04
J0316.1+0904	0.372	IB			44.35/0.07	45.16/0.03			-0.12/0.03	14.63/0.46	44.91/0.20	45.24/0.37
J0316.1-2611	0.443	HB		44.71/0.04	44.93/0.06	44.76/0.06		0.92/0.04	-0.08/0.02	16.11/0.70	45.02/0.14	45.45/0.21
J0318.7+2134		IU				45.06/0.06			-0.13/0.03	14.17/0.43	44.95/0.09	45.28/0.17
J0319.8+1847	0.190	HB		44.17/0.00	44.69/0.03	43.72/0.07		0.81/0.01	-0.07/0.01	16.77/0.27	44.70/0.07	45.14/0.10
J0322.0+2335		IB			44.35/0.07	45.34/0.05			-0.13/0.01	14.49/0.13	45.39/0.06	45.70/0.12
J0323.6-0109	2.075	IB	42.63/0.01	47.07/0.00	45.80/0.07	46.43/0.06	0.20/0.00	1.47/0.03	-0.14/0.02	14.59/0.23	46.71/0.09	46.98/0.12
J0325.2-5634	0.060	IB			42.85/0.07	42.86/0.07			-0.14/0.01	14.58/0.21	44.02/0.08	44.29/0.17
J0325.5+2223	2.066	LF	43.86/0.01	46.17/0.03	46.26/0.04	47.22/0.04	0.58/0.01	0.97/0.03	-0.16/0.01	13.07/0.16	46.38/0.09	46.70/0.14
J0325.6-1648	0.291	HB	40.87/0.01		45.49/0.02	44.54/0.04			-0.11/0.02	15.34/0.53	44.97/0.06	45.32/0.07
J0326.2+0225	0.147	HB	40.65/0.01	44.51/0.04	44.23/0.07	43.87/0.05	0.30/0.01	1.10/0.04	-0.09/0.01	15.74/0.19	44.38/0.06	44.78/0.08
J0331.3-6155		HU				45.08/0.05			-0.11/0.02	15.18/0.43	45.53/0.23	45.89/0.40
J0333.6+2916		HB	42.33/0.01			45.37/0.04			-0.07/0.02	15.11/0.56	45.00/0.21	45.53/0.28
J0333.9+6538		HB	42.50/0.01			45.21/0.06			-0.04/0.00	16.52/0.39	44.73/0.06	45.45/0.07
J0334.3-3726		IB	42.39/0.02	45.87/0.02	44.68/0.12	45.72/0.02	0.37/0.01	1.44/0.05	-0.13/0.01	14.26/0.18	45.70/0.07	46.03/0.10
J0334.3-4008	1.445	LB	44.14/0.04	46.91/0.04	45.74/0.13	46.97/0.02	0.50/0.02	1.43/0.06	-0.17/0.01	13.16/0.07	46.57/0.06	46.85/0.10
J0336.5+3210	1.259	LF	44.17/0.01		45.84/0.07	46.62/0.07			-0.11/0.01	13.55/0.15	46.28/0.07	46.72/0.10
J0336.9-1304	1.303	LF	43.35/0.01	45.49/0.04	45.22/0.07	46.11/0.10	0.61/0.01	1.10/0.04	-0.19/0.01	12.93/0.07	46.11/0.09	46.36/0.14

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0336.9-3622	1.537	IF	43.61/0.01		45.12/0.07	46.12/0.10			-0.13/0.01	14.04/0.05	46.66/0.08	47.01/0.11
J0338.1-2443	0.251	HB	40.44/0.03		43.69/0.07	42.98/0.21			-0.10/0.02	15.24/0.41	44.08/0.13	44.48/0.17
J0339.2-1738	0.066	HU	40.33/0.02			42.93/0.07			-0.09/0.01	15.67/0.35	44.31/0.14	44.71/0.18
J0339.5-0146	0.850	LF	43.78/0.01	45.83/0.04	44.60/0.13	46.42/0.02	0.63/0.01	1.46/0.06	-0.13/0.00	13.40/0.05	46.12/0.04	46.51/0.06
J0340.5-2119	0.223	IB	42.23/0.02	44.83/0.04	43.22/0.07	44.24/0.06	0.53/0.01	1.59/0.04	-0.12/0.01	13.90/0.10	44.90/0.05	45.30/0.07
J0343.2-2534	1.419	IF	43.54/0.01		44.73/0.07	46.46/0.06			-0.09/0.01	14.13/0.23	46.05/0.11	46.53/0.14
J0343.3+3622	1.484	LU	43.59/0.01	45.81/0.02		46.30/0.09	0.60/0.01		-0.11/0.01	13.39/0.23	45.56/0.10	46.01/0.15
J0348.6-2748	0.991	LF	43.46/0.01	45.77/0.04	45.17/0.08	45.73/0.08	0.58/0.01	1.22/0.05	-0.15/0.01	12.93/0.06	45.81/0.04	46.17/0.06
J0348.7-1606		IB	42.68/0.01	45.88/0.04		45.31/0.07	0.42/0.01		-0.11/0.02	14.28/0.46	45.77/0.09	46.17/0.11
J0349.2-1158	0.185	HB	39.98/0.04	43.91/0.04	44.73/0.04	43.53/0.10	0.29/0.02	0.70/0.03	-0.06/0.01	18.48/0.38	44.82/0.07	45.32/0.09
J0349.9-2102	2.944	LF	43.89/0.01	46.20/0.04	45.87/0.11	47.38/0.04	0.58/0.01	1.12/0.05	-0.17/0.04	12.91/0.19	46.51/0.22	46.81/0.32
J0353.0-3622		IB	40.86/0.03		44.90/0.07	44.29/0.12			-0.16/0.02	14.10/0.28	44.98/0.09	45.22/0.13
J0353.0-6831	0.087	HB			43.48/0.06	42.68/0.12			-0.08/0.01	16.20/0.19	44.67/0.10	45.10/0.15
J0354.6+8011		IB	42.85/0.01			45.31/0.05			-0.09/0.03	14.05/0.68	44.78/0.13	45.30/0.20
J0357.1+2325		LU	42.22/0.01	44.81/0.03		45.02/0.09	0.53/0.01		-0.15/0.02	13.42/0.22	44.96/0.08	45.27/0.13
J0357.1-4957	0.643	IB		45.54/0.02		45.08/0.07			-0.11/0.01	14.61/0.16	45.45/0.05	45.84/0.08
J0358.8+6002	0.455	IF	42.82/0.01			45.28/0.06			-0.10/0.01	14.69/0.12	45.73/0.11	46.17/0.15
J0359.3-2612	1.470	LB	43.77/0.02			45.88/0.12			-0.10/0.02	13.21/0.28	45.41/0.12	45.93/0.18
J0401.4+2109	0.834	LF	42.78/0.01	44.74/0.03		45.63/0.08	0.64/0.01		-0.12/0.02	13.26/0.16	44.85/0.11	45.27/0.17
J0401.8-3144	1.288	LF	43.59/0.01	44.84/0.04		45.93/0.12	0.78/0.01		-0.16/0.01	12.60/0.09	45.50/0.06	45.86/0.10
J0402.1-2618	1.920	LB	43.25/0.01	46.32/0.02		46.40/0.08	0.45/0.01		-0.20/0.03	13.36/0.17	46.45/0.16	46.65/0.26
J0403.7-2442	0.598	LF	42.31/0.01	44.50/0.04		44.91/0.11	0.60/0.01		-0.10/0.02	13.57/0.41	44.64/0.16	45.12/0.19
J0403.9-3604	1.417	LF	43.90/0.01	46.57/0.04	45.94/0.05	47.26/0.01	0.52/0.01	1.23/0.03	-0.20/0.01	12.99/0.06	46.86/0.05	47.09/0.08
J0405.5-1307	0.571	IF	43.67/0.01	45.22/0.12	44.81/0.09	45.21/0.07	0.72/0.02	1.15/0.08	-0.07/0.00	14.25/0.08	45.53/0.03	46.14/0.04
J0407.1-3825	1.285	LF	43.69/0.02		44.93/0.07	46.68/0.03			-0.16/0.01	12.93/0.07	46.07/0.05	46.39/0.07
J0407.5+0740	1.133	IB	43.12/0.01	46.31/0.03		46.20/0.08	0.42/0.01		-0.12/0.03	14.28/0.61	46.13/0.23	46.50/0.33
J0409.8-0358		IB	41.64/0.01	44.79/0.12		45.25/0.05	0.43/0.02		-0.13/0.07	14.29/1.17	45.05/0.31	45.37/0.44
J0413.6-5334	1.027	HF				46.11/0.04			-0.08/0.02	15.29/0.87	45.45/0.22	45.96/0.27
J0416.6-1850	1.536	LF	44.00/0.02	45.95/0.04		46.68/0.04	0.65/0.01		-0.11/0.01	13.56/0.19	46.04/0.08	46.48/0.12
J0416.8+0104	0.287	HB	41.50/0.02	45.31/0.03	45.17/0.00	44.25/0.07	0.31/0.01	1.05/0.01	-0.07/0.00	16.74/0.21	45.20/0.04	45.69/0.06
J0422.1-0642	0.242	LF	41.44/0.01			44.33/0.07			-0.16/0.02	13.67/0.14	44.55/0.06	44.83/0.10
J0423.2-0119	0.916	LF	43.90/0.01	46.36/0.03	45.50/0.09	46.70/0.02	0.56/0.01	1.32/0.05	-0.20/0.01	12.88/0.05	46.60/0.04	46.84/0.06
J0424.7+0035	0.310	IB	42.18/0.01	46.22/0.04	44.18/0.07	45.04/0.03	0.27/0.01	1.75/0.04	-0.12/0.01	14.22/0.16	45.57/0.06	45.94/0.08
J0425.0-5331	0.390	IB				44.95/0.05			-0.12/0.01	14.21/0.13	45.12/0.14	45.48/0.25
J0427.3-3900		IU	42.12/0.01			45.55/0.05			-0.12/0.01	13.83/0.15	44.64/0.07	45.02/0.11

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0428.6-3756	1.105	LB	43.50/0.01	46.10/0.04	45.39/0.07	47.28/0.01	0.53/0.01	1.26/0.04	-0.18/0.01	12.92/0.05	46.24/0.04	46.51/0.07
J0430.2-2508	0.516	LB	41.98/0.01	45.25/0.02		44.95/0.08	0.41/0.01		-0.17/0.03	13.71/0.25	45.30/0.14	45.54/0.23
J0430.5+1655		IU	41.59/0.01			45.34/0.06			-0.14/0.10	14.04/1.40	44.93/0.37	45.26/0.52
J0431.6+7403		HU	41.45/0.01			45.00/0.06			-0.09	15.64	44.94	45.37/0.00
J0433.1+3228		HU	41.15/0.02			44.87/0.10			-0.08/0.00	16.18/0.00	45.13/0.00	45.55/0.00
J0433.6+2905	0.970	IB	43.12/0.01	46.67/0.01	44.71/0.07	46.46/0.02	0.36/0.00	1.72/0.03	-0.14/0.01	14.05/0.13	46.26/0.10	46.57/0.15
J0433.7-6028		IU				45.38/0.05			-0.12/0.02	14.07/0.21	45.24/0.15	45.63/0.24
J0434.0-2010	0.928	IB	42.70/0.01	45.51/0.02		45.68/0.07	0.49/0.01		-0.12/0.02	14.29/0.27	45.53/0.05	45.91/0.07
J0438.3-1258	1.276	LF	43.32/0.01	45.66/0.03		45.83/0.09	0.58/0.01		-0.15/0.02	13.28/0.20	45.85/0.11	46.19/0.17
J0438.8-4519	2.017	LB		45.83/0.04		46.91/0.05			-0.12/0.02	13.17/0.25	46.09/0.10	46.53/0.15
J0439.6-3159		IU				44.50/0.11			-0.16/0.07	13.99/0.79	44.76/0.36	45.01/0.82
J0440.3-2500	0.600	HB	41.19/0.02		45.13/0.10	44.40/0.14			-0.08/0.01	16.01/0.29	45.14/0.07	45.56/0.10
J0440.8+2751		IB	42.19/0.04			45.02/0.09			-0.11/0.22	14.55/4.54	44.80/0.25	45.18/0.20
J0442.6-0017	0.844	LF	43.84/0.02	45.58/0.04	45.24/0.07	46.57/0.02	0.69/0.01	1.12/0.04	-0.10/0.01	13.69/0.10	45.74/0.04	46.22/0.06
J0444.6-6012	0.097	IF				43.04/0.09			-0.20/0.04	14.05/0.36	44.31/0.05	44.47/0.15
J0447.8-2119	1.971	IF	43.53/0.01		45.17/0.07	46.55/0.10			-0.07/0.01	14.64/0.26	45.81/0.09	46.38/0.11
J0448.6-1632		HB	41.81/0.01	45.42/0.02	45.25/0.04	45.17/0.05	0.35/0.01	1.06/0.02	-0.09/0.00	15.65/0.11	45.38/0.02	45.81/0.03
J0449.0+1121	1.207	LF	43.63/0.01	46.07/0.02	45.06/0.07	46.72/0.03	0.56/0.01	1.37/0.03	-0.14/0.01	13.09/0.15	45.98/0.08	46.35/0.11
J0449.4-4350	0.107	HB			44.18/0.03	44.58/0.01			-0.08/0.01	15.95/0.32	44.49/0.10	44.94/0.15
J0453.2-2808	2.559	IF	44.71/0.01	46.76/0.04	46.79/0.02	47.63/0.03	0.63/0.01	0.99/0.02	-0.12/0.01	13.55/0.12	46.94/0.05	47.37/0.07
J0455.7-4617	0.858	LF	43.73/0.09	45.96/0.04	45.30/0.12	46.24/0.03	0.60/0.02	1.24/0.06	-0.17/0.01	13.26/0.07	46.56/0.05	46.84/0.08
J0456.3+2702		IU	42.14/0.01			45.51/0.06			-0.11/0.03	14.46/0.76	44.96/0.14	45.33/0.22
J0456.3-3131	0.865	IF	42.36/0.01			45.68/0.08			-0.12/0.01	14.15/0.21	45.56/0.06	45.91/0.09
J0457.0+0643	0.405	IF	42.46/0.02			44.77/0.10	0.59/0.01		-0.08/0.01	14.18/0.34	44.89/0.10	45.41/0.13
J0457.0-2324	1.003	LF	43.78/0.01	46.28/0.04	44.92/0.07	47.19/0.01	0.55/0.01	1.50/0.04	-0.16/0.01	13.27/0.07	46.50/0.04	46.81/0.06
J0501.2-0157	2.286	IF	44.58/0.01	46.20/0.04	45.99/0.02	47.53/0.03	0.71/0.01	1.08/0.02	-0.11/0.01	13.50/0.11	46.57/0.04	47.03/0.06
J0502.5+0612	1.106	IF	43.59/0.01			46.10/0.09			-0.10/0.01	13.78/0.16	45.73/0.05	46.20/0.08
J0503.4+4522		HU	41.51/0.01			45.35/0.06			-0.04	19.05	45.48	46.08/0.00
J0503.5+6538		HB	41.94/0.02		45.24/0.07	44.92/0.10			-0.09/0.02	15.82/0.71	45.43/0.18	45.85/0.25
J0505.3+0459	0.954	LF	43.50/0.01	45.84/0.04	45.45/0.09	46.59/0.03	0.58/0.01	1.14/0.05	-0.11/0.01	13.68/0.12	45.66/0.06	46.10/0.08
J0505.3-0422	1.481	IF	43.20/0.01			46.25/0.09			-0.11/0.03	13.76/0.56	45.44/0.19	45.89/0.27
J0505.5+0416	0.027	IB	39.55/0.02		42.05/0.07	42.09/0.09			-0.09/0.02	15.24/0.49	42.58/0.17	43.00/0.25
J0505.5-1558		IU	42.65/0.02			44.84/0.09			-0.07/0.01	14.73/0.37	44.80/0.16	45.38/0.21
J0505.9+6114		HB	41.39/0.02			44.95/0.09			-0.06/0.01	16.65/0.85	44.90/0.15	45.42/0.19
J0506.9-5435		HU		45.33/0.02	45.36/0.41	44.72/0.06		0.99/0.16	-0.08/0.01	16.56/0.43	45.56/0.11	45.96/0.17

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0507.1-6102	1.093	IF	43.88/0.09		45.47/0.06	46.36/0.04			-0.10/0.01	14.24/0.07	46.56/0.06	46.99/0.09
J0508.0+6736	0.314	HB	40.92/0.02	45.49/0.03	45.00/0.07	44.71/0.03	0.17/0.01	1.18/0.04	-0.05/0.01	18.88/1.13	45.66/0.23	46.20/0.27
J0509.3+1012	0.621	IF	42.79/0.01			45.58/0.06			-0.09/0.02	14.07/0.44	45.18/0.15	45.66/0.21
J0509.4+0541		IB	42.77/0.01	46.30/0.04	44.10/0.07	46.14/0.02	0.36/0.01	1.81/0.04	-0.17/0.01	13.96/0.11	46.39/0.07	46.63/0.10
J0509.7-0400	0.304	HB	41.33/0.01	44.28/0.00	45.17/0.52	43.72/0.18	0.46/0.00	0.68/0.19	-0.04/0.01	18.48/1.05	45.04/0.17	45.65/0.21
J0510.0+1802	0.416	LF	42.61/0.01	44.57/0.02	43.87/0.07	45.31/0.04	0.64/0.01	1.26/0.03	-0.19/0.01	12.75/0.13	45.09/0.09	45.35/0.15
J0512.2+2918		IU	42.28/0.01			45.15/0.11			-0.10/0.01	14.97/0.24	45.73/0.07	46.11/0.10
J0515.3-4557	0.194	IF		44.68/0.04	44.01/0.04	43.90/0.10		1.25/0.03	-0.09/0.01	14.36/0.08	44.75/0.07	45.22/0.10
J0515.8+1526		IB	41.47/0.02			45.52/0.04			-0.17/0.14	13.93/1.50	45.24/0.51	45.48/0.20
J0516.3+7351	0.249	HB	41.06/0.02			44.11/0.07			-0.09/0.01	15.41/0.35	44.30/0.13	44.73/0.19
J0516.7-6207	1.300	LB		46.19/0.04		46.75/0.02			-0.17/0.02	13.35/0.14	46.33/0.11	46.60/0.24
J0521.4-1740	0.347	IF	42.26/0.01	44.68/0.04		44.66/0.08	0.56/0.01		-0.06/0.01	14.87/0.59	44.07/0.13	44.73/0.18
J0521.7+2113	0.108	HB	41.27/0.01			44.51/0.01			-0.06/0.01	15.73/0.35	43.74/0.10	44.35/0.13
J0521.9-3847		LU	42.16/0.01			44.90/0.12			-0.13	13.56	44.68	45.04/0.00
J0522.9-3628	0.057	LU	42.16/0.01	44.21/0.04	43.73/0.02	43.86/0.02	0.63/0.01	1.18/0.02	-0.13/0.01	13.75/0.12	44.23/0.03	44.60/0.06
J0525.3-4558	1.479	IF	44.11/0.04		45.22/0.07	45.99/0.09			-0.09/0.01	14.21/0.12	46.26/0.08	46.77/0.11
J0525.6-6013		HU				44.80/0.06			-0.06/0.00	16.55/0.09	44.56/0.01	45.09/0.02
J0526.2-4829	1.299	LF		45.43/0.04		46.55/0.04			-0.22/0.02	12.80/0.06	46.16/0.13	46.36/0.33
J0526.6+6321		LU	41.88/0.01			45.02/0.09			-0.13/0.01	13.62/0.15	44.35/0.06	44.72/0.09
J0529.1+0933		HU	41.45/0.02			45.27/0.07			-0.08/0.01	16.78/0.42	45.88/0.12	46.28/0.16
J0529.2-5917		IB			43.88/0.06	44.95/0.10			-0.14	14.37	45.19	45.48/0.00
J0529.8-7242	1.340	LU		46.04/0.04		46.26/0.07			-0.17/0.01	13.29/0.09	46.33/0.04	46.59/0.08
J0530.8+1330	2.070	LF	44.34/0.01	46.65/0.01	46.37/0.09	47.47/0.03	0.58/0.00	1.10/0.04	-0.20/0.01	12.53/0.10	46.78/0.06	47.03/0.09
J0532.0-4827		IU				46.16/0.01			-0.11/0.01	14.29/0.07	44.95/0.09	45.36/0.14
J0532.7+0732	1.254	LF	44.17/0.01	46.37/0.02	43.43/0.07	47.07/0.02	0.60/0.01	2.09/0.03	-0.14/0.01	13.07/0.10	46.11/0.10	46.49/0.17
J0533.0-3939		LU	42.10/0.02			45.05/0.08			-0.13/0.02	12.98/0.20	44.04/0.14	44.46/0.22
J0533.2+4822	1.162	IF	43.31/0.01		44.70/0.07	46.80/0.02			-0.12/0.01	13.93/0.26	46.29/0.24	46.67/0.32
J0533.6-8323	0.774	LF				45.72/0.05			-0.15/0.02	13.26/0.17	44.78/0.11	45.12/0.19
J0537.4-5717	1.550	HB		46.48/0.02		46.07/0.07			-0.09/0.01	15.28/0.36	46.16/0.08	46.57/0.13
J0538.4-3909		HU	41.35/0.02		44.50/0.02	44.76/0.09			-0.10/0.01	15.34/0.16	45.04/0.08	45.43/0.11
J0538.8-4405	0.894	LB	43.91/0.04	46.39/0.02	45.73/0.04	47.26/0.01	0.55/0.01	1.24/0.02	-0.15/0.01	13.30/0.09	46.68/0.04	47.01/0.05
J0540.0-2837	3.104	IF	44.38/0.01	46.49/0.04	46.30/0.06	47.75/0.05	0.62/0.01	1.07/0.04	-0.12/0.01	13.38/0.10	46.58/0.04	47.00/0.06
J0540.4+5823		HB	41.52/0.02			46.26/0.05			-0.08/0.01	16.62/0.25	45.67/0.05	46.11/0.06
J0540.5-5416	1.185	LF		46.17/0.04	44.66/0.07	46.35/0.06		1.56/0.04	-0.18/0.01	13.22/0.08	46.34/0.07	46.60/0.15
J0542.5-0907c		LU	42.40/0.01	44.49/0.00		45.44/0.08	0.62/0.00		-0.23/0.01	12.04/0.03	44.24/0.08	44.48/0.14

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0543.9-5531	0.273	HB		44.89/0.02	44.79/0.05	44.62/0.03		1.04/0.02	-0.08/0.01	16.27/0.19	44.95/0.05	45.38/0.07
J0550.6-3217	0.069	HB	40.68/0.02	43.40/0.04	44.09/0.01	42.46/0.11	0.51/0.01	0.75/0.02	-0.06/0.00	16.90/0.26	44.36/0.06	44.89/0.08
J0553.5-2036		HU	42.34/0.01			45.02/0.06			-0.08/0.01	15.34/0.35	45.12/0.13	45.60/0.19
J0558.1-3838	0.302	HB	41.49/0.02	44.26/0.04	44.98/0.05	44.46/0.06	0.50/0.01	0.74/0.03	-0.06/0.01	16.76/0.27	45.05/0.05	45.56/0.07
J0558.6-7459	1.540	IB		46.72/0.02		46.21/0.06			-0.17/0.04	13.66/0.32	46.59/0.17	46.83/0.39
J0600.9-3943	1.661	LF	43.63/0.01		45.22/0.07	46.51/0.11			-0.15/0.02	13.34/0.15	46.26/0.09	46.58/0.14
J0601.2-7036	2.409	LF			45.28/0.07	47.48/0.02			-0.13/0.04	13.35/0.31	45.97/0.24	46.35/0.40
J0602.2+5314	0.052	IU	39.49/0.02			42.74/0.07			-0.14/0.01	15.11/0.12	44.11/0.04	44.37/0.06
J0602.8-4016		IU				45.19/0.05			-0.13	14.51	45.64	45.94/0.00
J0604.1-4817		HB		45.31/0.02		44.19/0.13			-0.07/0.00	16.42/0.11	45.47/0.02	45.93/0.03
J0604.7-4849		HU				44.87/0.10			-0.05	15.52	44.29	44.96/0.00
J0606.4-4729		IU		47.05/0.03	45.37/0.03	44.96/0.08		1.62/0.02	-0.18/0.03	14.23/0.30	46.57/0.15	46.77/0.37
J0607.4+4739		IB	42.62/0.01	45.86/0.03		45.80/0.02	0.41/0.01		-0.11/0.02	14.66/0.43	45.79/0.08	46.17/0.11
J0608.0-0835	0.872	IF	43.84/0.01	46.14/0.01	44.98/0.14	46.31/0.03	0.58/0.01	1.43/0.06	-0.10/0.01	13.88/0.11	46.13/0.07	46.58/0.10
J0609.4-0248		IB	41.83/0.01			45.22/0.06			-0.10	14.91	45.32	45.71/0.00
J0611.1-6100	1.773	IF		45.49/0.04	45.09/0.07	46.68/0.08		1.15/0.04	-0.09/0.01	13.88/0.35	45.51/0.09	46.04/0.11
J0612.8+4122		HB	42.44/0.01	46.14/0.03		45.98/0.02	0.33/0.01		-0.07/0.01	16.03/0.86	45.83/0.22	46.34/0.28
J0615.4-3116		IB	42.28/0.01		43.75/0.07	45.18/0.07			-0.09/0.02	14.25/0.28	44.73/0.22	45.21/0.31
J0617.2+5701		LB	42.71/0.01			45.41/0.04			-0.19/0.01	13.74/0.08	46.00/0.04	46.20/0.07
J0617.6-1717	0.320	HB	42.08/0.02			44.67/0.05			-0.11/0.04	15.31/1.33	45.84/0.27	46.18/0.41
J0618.0+7819	1.430	LF	43.04/0.01	45.44/0.04	44.76/0.08	46.02/0.09	0.57/0.01	1.25/0.04	-0.14/0.02	13.24/0.15	45.48/0.13	45.86/0.18
J0618.9-1138	0.970	LU	43.22/0.01	44.87/0.01		45.91/0.09	0.70/0.00		-0.16/0.03	12.81/0.21	45.19/0.21	45.52/0.35
J0620.4+2644		HU	41.89/0.02			44.41/0.14			-0.09/0.00	16.06/0.15	46.02/0.04	46.40/0.06
J0622.4-2606	0.414	HB	41.78/0.01		44.58/0.06	44.99/0.04			-0.08/0.01	15.61/0.37	44.92/0.13	45.39/0.18
J0625.2+4440		IB	42.13/0.01	44.89/0.03	44.55/0.19	45.26/0.05	0.50/0.01	1.13/0.08	-0.11/0.01	14.47/0.16	45.42/0.08	45.80/0.10
J0626.0-5436	2.051	IF		46.17/0.03	45.71/0.05	46.82/0.12		1.17/0.03	-0.11/0.02	13.87/0.37	46.09/0.12	46.54/0.17
J0626.6-4259		IU				44.58/0.09			-0.11	15.10	45.04	45.38/0.00
J0629.0-6248		LB		45.39/0.03		45.17/0.06			-0.14/0.01	12.81/0.07	44.56/0.06	44.95/0.10
J0629.4-1959	1.724	LB	43.83/0.01	45.04/0.07	45.04/0.07	47.17/0.02	0.72/0.01	1.13/0.03	-0.13/0.01	13.45/0.12	46.46/0.12	46.84/0.16
J0630.9-2406	1.238	IB	42.75/0.01	46.87/0.02	45.79/0.07	46.53/0.02	0.26/0.01	1.40/0.03	-0.12/0.01	14.87/0.16	46.53/0.05	46.87/0.07
J0634.7-2334	1.535	LF	43.66/0.01	44.78/0.04		46.45/0.08	0.80/0.01		-0.21/0.01	12.33/0.06	45.82/0.07	46.08/0.11
J0635.7-7517	0.653	LF	43.90/0.01	46.15/0.04	45.68/0.06	45.85/0.04	0.59/0.01	1.17/0.03	-0.11/0.00	13.75/0.08	46.22/0.03	46.66/0.04
J0638.6+7324	1.850	LF	44.01/0.01	46.33/0.04	45.58/0.20	46.71/0.07	0.58/0.01	1.28/0.09	-0.16/0.01	13.31/0.08	46.59/0.06	46.89/0.09
J0644.3-6713		LU		43.87/0.04		45.87/0.02			-0.19/0.02	12.62/0.12	44.60/0.15	44.88/0.30
J0644.6-2853		HU				44.78/0.11			-0.06	16.99	45.31	45.84/0.00

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0645.9-3914	0.681	IF	42.70/0.01			45.24/0.16			-0.09/0.02	14.56/0.49	45.29/0.08	45.75/0.11
J0647.0-5134		HU				44.86/0.09			-0.07	16.98	46.00	46.46/0.00
J0647.6-6058		IU		44.65/0.02		45.32/0.05			-0.11/0.01	14.17/0.23	44.60/0.04	45.02/0.06
J0648.1-3045	0.455	LF	42.79/0.01	44.62/0.03	43.67/0.07	45.34/0.05	0.67/0.01	1.35/0.04	-0.12/0.01	13.23/0.10	44.86/0.04	45.28/0.06
J0648.8+1516	0.179	HB	40.81/0.01		44.54/0.01	44.20/0.04			-0.10/0.00	15.71/0.07	44.85/0.02	45.23/0.03
J0648.8-1740	1.232	LF	43.74/0.01	46.07/0.00		46.29/0.09	0.58/0.00		-0.11/0.02	13.42/0.23	45.76/0.09	46.22/0.13
J0649.6-3138		HU			45.17/0.02	44.77/0.08			-0.06/0.03	18.07/2.07	45.43/0.33	45.92/0.20
J0650.7+2503	0.203	HB	41.09/0.01	45.12/0.04	44.51/0.07	44.43/0.03	0.27/0.01	1.23/0.04	-0.09/0.02	16.13/0.62	44.96/0.13	45.36/0.19
J0651.3+4014		HU	41.48/0.02			44.90/0.08			-0.10/0.01	15.58/0.16	45.40/0.06	45.78/0.08
J0652.0-4808		HU				44.72/0.11			-0.07	16.14	45.02	45.53/0.00
J0653.6+2817		HU	41.49/0.02			45.15/0.06			-0.07	16.93	45.51	45.99/0.00
J0654.4+4514	0.933	LF	43.07/0.01	44.97/0.04	44.80/0.06	46.48/0.02	0.66/0.01	1.06/0.04	-0.13/0.01	13.11/0.21	45.21/0.11	45.62/0.16
J0654.4+5042	1.253	IF	43.03/0.01			46.40/0.03			-0.12/0.02	14.11/0.26	46.02/0.10	46.38/0.14
J0654.5+0926		HU	41.61/0.01			45.10/0.11			-0.12/0.00	15.21/0.10	45.85/0.03	46.15/0.05
J0656.4+4232	0.059	HB	40.99/0.04		42.41/0.07	42.95/0.06			-0.08/0.02	15.51/0.94	44.11/0.22	44.57/0.30
J0658.3-5832		HU				44.85/0.11			-0.08	17.14	46.83	47.25/0.00
J0700.6-6610		IB			44.09/0.07	45.83/0.02			-0.16/0.01	14.08/0.09	46.04/0.05	46.30/0.11
J0701.4-4634	0.822	LF		44.95/0.04	44.54/0.07	46.08/0.03		1.15/0.04	-0.18/0.01	13.14/0.06	45.99/0.04	46.24/0.08
J0703.4-3914		IU	41.54/0.01			45.17/0.07			-0.14/0.01	14.40/0.12	45.50/0.13	45.79/0.18
J0706.1-4849		IU				45.26/0.07			-0.06/0.01	14.71/0.44	44.09/0.03	44.70/0.03
J0706.5+3744		HB	41.48/0.01			45.29/0.04			-0.08/0.01	15.67/0.34	44.96/0.06	45.43/0.08
J0707.0+7741		HB	41.62/0.01			45.47/0.03			-0.08/0.03	16.07/1.50	45.44/0.30	45.88/0.20
J0707.2+6101		HB	42.67/0.01			45.02/0.12			-0.05/0.01	15.14/0.70	44.72/0.11	45.39/0.14
J0708.9+2239		IU	41.58/0.01			44.95/0.08			-0.12/0.00	15.08/0.10	45.45/0.03	45.79/0.04
J0710.3+5908	0.125	HB	40.87/0.02	43.71/0.03	44.16/0.07	43.41/0.06	0.48/0.01	0.84/0.03	-0.06/0.01	17.56/0.71	44.64/0.17	45.16/0.23
J0712.2-6436		HU				44.96/0.09			-0.05	15.38	44.37	45.05/0.00
J0712.6+5033	0.502	IB	42.21/0.01	44.70/0.04	43.87/0.07	45.38/0.03	0.55/0.01	1.31/0.04	-0.08/0.01	14.65/0.27	44.80/0.09	45.33/0.11
J0713.9+1933	0.540	LF	42.34/0.01			45.79/0.02			-0.21/0.04	13.10/0.21	45.42/0.22	45.61/0.37
J0718.7-4319		IB		45.71/0.04		45.59/0.03			-0.12/0.00	14.67/0.07	45.59/0.02	45.91/0.04
J0719.3+3307	0.779	LF	42.68/0.01	44.83/0.01	44.69/0.10	46.44/0.01	0.61/0.01	1.05/0.04	-0.14/0.02	13.25/0.21	45.13/0.13	45.49/0.19
J0720.0-4010		HU				45.04/0.09			-0.09	15.72	45.51	45.93/0.00
J0721.4+0404	0.665	IF	42.68/0.01			45.63/0.06			-0.15/0.01	14.24/0.09	46.51/0.19	46.77/0.28
J0721.9+7120	0.300	IB	42.32/0.01	46.23/0.04	44.59/0.05	45.95/0.01	0.29/0.01	1.61/0.03	-0.10/0.00	14.96/0.06	46.00/0.06	46.39/0.08
J0723.7+2050		HU	41.61/0.01			44.98/0.09			-0.08/0.01	16.16/0.29	45.64/0.06	46.05/0.08
J0724.1+2857	0.966	IF	41.95/0.02			45.89/0.08			-0.11/0.02	14.48/0.42	45.26/0.06	45.63/0.08

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0725.2+1425	1.038	IF	43.60/0.01	45.98/0.04		46.87/0.01	0.57/0.01		-0.08/0.01	14.56/0.40	45.94/0.13	46.47/0.18
J0725.8-0054	0.128	IU	41.84/0.01	44.37/0.04	43.12/0.08	43.94/0.05	0.54/0.01	1.46/0.04	-0.10/0.00	14.00/0.09	44.34/0.04	44.81/0.06
J0726.6-4727	1.686	IF		45.95/0.03		46.92/0.04			-0.11/0.02	13.63/0.35	45.87/0.12	46.32/0.17
J0730.2-1141	1.589	IF	44.37/0.01		45.20/0.07	47.79/0.01			-0.13/0.01	13.68/0.10	47.07/0.09	47.45/0.13
J0730.3+6720	0.170	IF	40.70/0.01			43.65/0.11			-0.12/0.02	14.37/0.28	44.18/0.03	44.53/0.04
J0730.5+3307	0.112	IB	39.54/0.03		43.03/0.07	43.41/0.07			-0.13/0.00	14.87/0.02	43.86/0.01	44.15/0.01
J0730.5-6606	0.106	IU			43.66/0.05	43.22/0.08			-0.12/0.02	15.03/0.27	44.47/0.18	44.79/0.34
J0732.2-4638		IU				45.29/0.07			-0.06/0.01	13.93/0.30	44.23/0.06	44.92/0.05
J0733.5+5153		LU	41.36/0.02			44.45/0.11			-0.31/0.18	13.26/0.89	46.57/0.76	46.58/1.17
J0733.8+4108	0.670	IB	41.57/0.02	45.26/0.01		45.17/0.08	0.33/0.00		-0.13/0.02	14.40/0.42	45.20/0.04	45.51/0.06
J0733.8+5021	0.720	LF	43.14/0.01	45.21/0.04		45.48/0.07	0.63/0.01		-0.13/0.01	13.13/0.13	45.35/0.09	45.74/0.13
J0734.3-7709		LU		44.08/0.03		45.52/0.04			-0.19/0.02	12.60/0.09	44.53/0.12	44.81/0.24
J0738.1+1741	0.424	IB	43.13/0.01	45.95/0.04	44.82/0.05	45.74/0.02	0.49/0.01	1.42/0.03	-0.12/0.00	14.23/0.06	46.07/0.03	46.45/0.04
J0739.4+0137	0.189	IF	42.44/0.01	44.78/0.03	44.36/0.05	44.73/0.03	0.58/0.01	1.15/0.03	-0.09/0.00	14.43/0.07	45.04/0.03	45.51/0.05
J0742.6+5444	0.720	IF	42.70/0.01		44.43/0.07	46.30/0.02			-0.10/0.01	14.42/0.19	45.47/0.10	45.90/0.14
J0742.6-5623	2.319	LF		46.15/0.03		46.91/0.10			-0.13/0.01	13.22/0.10	46.27/0.06	46.65/0.09
J0744.3+7434	0.315	HB	40.87/0.02	44.41/0.03	45.12/0.03	44.42/0.05	0.36/0.01	0.74/0.02	-0.07/0.01	16.59/0.27	44.82/0.06	45.29/0.08
J0746.4+2540	2.979	IF	44.05/0.02	46.49/0.04	46.19/0.02	47.48/0.09	0.56/0.01	1.11/0.02	-0.14/0.01	13.41/0.11	46.51/0.06	46.87/0.09
J0746.6-4756		HU				45.44/0.04			-0.05	18.35	45.92	46.49/0.00
J0746.9+8511		HU	41.02/0.02			44.66/0.08			-0.09	15.73	44.85	45.25/0.00
J0747.4+0904	2.055	HB	42.74/0.02	46.30/0.01	46.73/0.02	46.24/0.10	0.36/0.00	0.84/0.01	-0.06/0.01	17.22/0.63	46.49/0.14	46.98/0.19
J0748.3+2401	0.410	LF	42.73/0.01	44.80/0.04	44.20/0.10	44.81/0.06	0.62/0.01	1.22/0.05	-0.15/0.01	12.99/0.04	44.95/0.04	45.30/0.05
J0748.8+4929		LU	41.52/0.02	44.11/0.01		44.92/0.09	0.53/0.01		-0.22/0.05	13.00/0.25	44.73/0.35	44.91/0.56
J0749.4+1059	0.214	IU	41.46/0.01	44.26/0.01		44.01/0.09	0.49/0.00		-0.11/0.03	14.17/0.57	44.20/0.10	44.60/0.15
J0750.6+1232	0.889	LF	43.61/0.02	45.89/0.04	45.49/0.08	46.01/0.05	0.59/0.01	1.15/0.04	-0.15/0.01	13.31/0.07	46.30/0.04	46.64/0.06
J0753.1+5353	0.200	LB	42.00/0.01	44.51/0.04	43.37/0.15	44.28/0.04	0.55/0.01	1.42/0.07	-0.10/0.01	13.74/0.14	44.36/0.09	44.82/0.11
J0754.8+4824	0.377	LB	42.09/0.01	45.13/0.01	43.79/0.07	44.99/0.04	0.45/0.00	1.50/0.03	-0.14/0.01	13.78/0.16	45.18/0.08	45.50/0.11
J0757.0+0956	0.266	IB	42.33/0.02	45.09/0.04	44.24/0.06	44.88/0.03	0.50/0.01	1.32/0.04	-0.13/0.01	14.05/0.09	45.51/0.04	45.86/0.05
J0758.1+1130	0.569	IF	42.71/0.01	45.15/0.01		44.89/0.10	0.56/0.00		-0.11/0.02	14.20/0.42	45.54/0.11	45.95/0.15
J0758.9+2705	0.099	LB		43.73/0.00		43.30/0.07			-0.27/0.02	13.06/0.09	44.32/0.12	44.41/0.39
J0800.9+4401	1.072	LB	42.96/0.01	45.10/0.01		45.87/0.07	0.61/0.00		-0.18/0.04	12.96/0.19	45.36/0.26	45.65/0.42
J0804.4+0418		IU	42.47/0.01			44.92/0.12			-0.08/0.01	14.60/0.39	44.86/0.05	45.36/0.07
J0805.0-0622		HU				44.87/0.09			-0.08	16.62	45.43	45.87/0.00
J0805.2-0112	1.388	IF		46.09/0.04		46.31/0.06			-0.12/0.03	13.72/0.35	45.95/0.16	46.34/0.26
J0805.4+6144	3.033	LF	44.35/0.02	46.24/0.04	46.28/0.07	47.57/0.05	0.66/0.01	0.99/0.04	-0.13/0.01	13.19/0.09	46.49/0.05	46.89/0.07

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0805.4+7534	0.121	HB	40.37/0.01		43.51/0.07	43.86/0.03			-0.10/0.02	15.28/0.46	44.08/0.16	44.48/0.22
J0806.6+5933	0.300	IB	41.25/0.01		44.20/0.07	44.04/0.09			-0.13/0.01	14.63/0.28	44.78/0.08	45.10/0.12
J0807.1+7744		LU	42.31/0.01			44.95/0.08			-0.12/0.03	13.48/0.45	44.31/0.20	44.71/0.33
J0807.1-0541		HB	42.78/0.01			45.54/0.04			-0.05/0.01	15.60/0.65	44.83/0.07	45.51/0.09
J0807.9+4946	1.434	LF	43.89/0.01	45.96/0.04	45.39/0.15	46.15/0.10	0.63/0.01	1.21/0.07	-0.13/0.01	13.28/0.08	46.12/0.05	46.50/0.07
J0808.2-0751	1.837	LF	44.25/0.01	46.95/0.03	45.33/0.07	47.51/0.01	0.51/0.01	1.60/0.04	-0.12/0.01	13.00/0.13	46.19/0.06	46.65/0.08
J0809.5+4045	1.418	LF	43.61/0.01	46.63/0.04	45.61/0.12	46.13/0.12	0.45/0.01	1.38/0.06	-0.12/0.01	13.42/0.15	45.92/0.07	46.34/0.10
J0809.5+5342	2.133	LF	43.32/0.01	45.86/0.04		46.69/0.07	0.54/0.01		-0.16/0.02	13.18/0.12	45.96/0.10	46.26/0.15
J0809.6+3456	0.083	IB	40.66/0.02	44.17/0.00	44.31/0.06	42.74/0.09	0.36/0.00	0.95/0.02	-0.09/0.01	15.22/0.45	43.83/0.07	44.25/0.10
J0809.8+5218	0.138	HB	41.02/0.01	44.43/0.03	43.70/0.07	44.48/0.02	0.38/0.01	1.27/0.03	-0.09/0.01	15.73/0.23	44.66/0.05	45.08/0.07
J0811.2-7529		IB		45.44/0.02		45.67/0.03			-0.10/0.01	14.78/0.24	45.29/0.05	45.70/0.09
J0811.3+0146	1.148	LB	43.44/0.02	45.85/0.04		46.56/0.03	0.56/0.01		-0.14/0.01	13.28/0.11	45.94/0.06	46.31/0.08
J0812.0+0237		HB	42.13/0.02	45.61/0.00		44.69/0.11	0.37/0.00		-0.09/0.01	15.59/0.52	45.57/0.09	45.98/0.13
J0812.9+5555	0.383	LB	41.11/0.02	44.59/0.01		44.37/0.10	0.37/0.00		-0.23/0.01	13.25/0.04	44.96/0.04	45.11/0.07
J0813.3+6509		LU	41.46/0.02			44.73/0.11			-0.26/0.02	13.27/0.08	45.56/0.10	45.64/0.16
J0814.1-1012		HB	41.61/0.01	45.85/0.02	45.25/0.06	45.45/0.04	0.24/0.01	1.22/0.03	-0.11/0.01	15.18/0.12	45.71/0.03	46.05/0.04
J0814.5+2943	1.084	HB	42.07/0.02	45.67/0.01	45.21/0.07	45.39/0.10	0.35/0.00	1.17/0.03	-0.09/0.00	15.38/0.07	45.55/0.01	45.97/0.01
J0814.7+6428	0.239	LB	41.20/0.01	44.69/0.04		44.80/0.03	0.37/0.01		-0.17/0.02	13.79/0.22	44.76/0.09	45.01/0.13
J0816.4-1311	0.046	HB	39.65/0.02	43.17/0.02	43.28/0.03	43.07/0.03	0.36/0.01	0.96/0.02	-0.08/0.00	15.87/0.17	43.26/0.03	43.70/0.04
J0816.5+2049	0.058	LB		42.96/0.01		42.50/0.11			-0.18/0.03	13.56/0.24	43.14/0.16	43.37/0.37
J0816.7+5739	0.054	HB	39.93/0.01		42.38/0.07	43.13/0.04			-0.06/0.01	16.07/0.69	42.67/0.09	43.24/0.12
J0817.8-0935		IB	42.71/0.01	45.34/0.04		45.48/0.04	0.53/0.01		-0.10/0.03	14.50/0.75	45.24/0.08	45.68/0.12
J0818.2+4223	0.530	LB	43.02/0.01	45.11/0.04	44.34/0.21	46.03/0.01	0.62/0.01	1.28/0.09	-0.11/0.01	13.52/0.13	45.26/0.04	45.72/0.06
J0818.8+2751	0.393	LB	42.08/0.01	44.42/0.01		44.61/0.10	0.58/0.00		-0.14/0.02	13.52/0.16	44.58/0.08	44.91/0.13
J0820.4+3640	0.393	IB	41.68/0.01		43.33/0.07	44.64/0.08			-0.10/0.01	14.30/0.24	44.41/0.13	44.84/0.18
J0820.9-1258	0.074	IB	41.25/0.01		42.75/0.10	42.84/0.12			-0.07/0.01	14.77/0.41	43.33/0.12	43.93/0.16
J0822.9+4041	0.866	IF	42.95/0.01	45.27/0.01	44.51/0.07	45.69/0.08	0.58/0.00	1.28/0.03	-0.07/0.00	14.87/0.10	45.22/0.02	45.79/0.02
J0824.1+2434	1.242	IF	43.15/0.01	45.45/0.01		46.12/0.08	0.58/0.00		-0.10/0.01	13.94/0.23	45.49/0.05	45.96/0.07
J0824.9+3916	1.216	IF	43.88/0.01	46.23/0.04	45.72/0.09	46.10/0.07	0.58/0.01	1.19/0.05	-0.08/0.01	13.96/0.14	46.03/0.03	46.57/0.04
J0824.9+5551	1.421	LF	44.00/0.01	46.16/0.04	45.46/0.05	46.54/0.05	0.61/0.01	1.26/0.03	-0.19/0.01	12.75/0.07	46.21/0.05	46.46/0.09
J0825.9-2230	0.911	IB	43.18/0.01	46.68/0.04	45.43/0.08	46.50/0.02	0.37/0.01	1.46/0.04	-0.11/0.01	14.39/0.12	46.48/0.06	46.85/0.08
J0826.0+0307	0.506	LB	43.08/0.01	45.40/0.04	44.61/0.07	44.92/0.07	0.58/0.01	1.29/0.04	-0.13/0.01	13.69/0.07	45.71/0.04	46.08/0.06
J0827.2-0711	0.247	IU	41.53/0.02			44.18/0.07			-0.11/0.02	15.16/0.50	45.13/0.26	45.50/0.37
J0828.5+5217	0.338	IF	42.01/0.02	44.26/0.01		44.14/0.11	0.59/0.00		-0.06/0.01	14.82/0.57	44.17/0.03	44.79/0.04
J0829.3+0901	0.866	LF	42.94/0.01	44.31/0.02	44.62/0.04	45.08/0.13	0.75/0.01	0.88/0.02	-0.08/0.02	13.42/0.29	44.47/0.10	45.03/0.15

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0830.3-5855		HU				45.29/0.07			-0.11/0.01	15.32/0.25	45.78/0.05	46.13/0.08
J0830.7+2408	0.939	LF	43.36/0.01	46.30/0.04	44.91/0.14	46.26/0.04	0.47/0.01	1.51/0.07	-0.14/0.01	13.50/0.06	46.26/0.03	46.59/0.04
J0831.9+0430	0.174	LB	42.06/0.02	45.22/0.04	43.08/0.07	44.68/0.02	0.43/0.01	1.79/0.04	-0.14/0.01	13.84/0.07	45.10/0.03	45.41/0.05
J0832.6+4914	0.548	LB	42.55/0.01	44.59/0.01	43.99/0.06	44.78/0.11	0.63/0.00	1.22/0.02	-0.09/0.01	13.56/0.18	44.82/0.10	45.35/0.11
J0834.1+4223	0.249	IF	41.69/0.01	44.84/0.04	43.54/0.07	44.48/0.05	0.43/0.01	1.48/0.04	-0.11/0.01	14.20/0.13	44.74/0.04	45.14/0.05
J0834.7+4403	0.475	IB	42.05/0.01	45.03/0.01		44.69/0.09	0.46/0.00		-0.08/0.02	14.77/0.63	44.75/0.06	45.23/0.09
J0835.4+0930	0.415	IB	41.67/0.02	44.74/0.00		44.60/0.10	0.45/0.00		-0.09/0.02	15.04/0.64	44.67/0.05	45.12/0.07
J0836.3+2143	1.595	LU	43.06/0.01	45.58/0.01		46.22/0.11	0.54/0.00		-0.15/0.02	13.48/0.21	45.75/0.13	46.08/0.20
J0836.5-2020	2.752	LF	44.65/0.01	46.53/0.04	45.89/0.07	47.23/0.09	0.66/0.01	1.24/0.04	-0.14/0.01	12.76/0.08	46.74/0.04	47.13/0.06
J0839.5+0102	1.123	LF	43.27/0.01	45.60/0.04	45.00/0.07	45.94/0.07	0.58/0.01	1.22/0.04	-0.13/0.01	13.47/0.12	45.71/0.08	46.10/0.11
J0839.6+1803	0.280	LB	42.01/0.02	44.76/0.01	43.27/0.07	43.99/0.10	0.50/0.00	1.55/0.03	-0.12/0.01	13.83/0.14	44.58/0.07	44.96/0.11
J0839.6+3538	0.415	LB	41.64/0.02	44.52/0.01		44.57/0.07	0.48/0.00		-0.17/0.02	13.52/0.23	44.71/0.12	44.98/0.18
J0841.4+7053	2.218	IF	44.78/0.01	47.14/0.04	46.75/0.01	47.38/0.03	0.57/0.01	1.14/0.02	-0.08/0.01	14.44/0.18	47.01/0.05	47.53/0.08
J0842.0-6055		IU				45.43/0.04			-0.08/0.01	13.91/0.22	44.49/0.06	45.06/0.06
J0843.9+5311	0.435	LB	41.47/0.01	44.74/0.01		44.74/0.07	0.41/0.00		-0.19/0.01	13.46/0.10	45.00/0.09	45.21/0.14
J0845.1-5458		IU				45.63/0.03			-0.11/0.01	14.23/0.06	45.58/0.08	46.00/0.12
J0846.7-0651		IB	42.31/0.01	46.13/0.04	45.06/0.06	45.10/0.11	0.31/0.01	1.40/0.04	-0.12/0.01	14.22/0.17	45.91/0.12	46.27/0.15
J0846.9-2336	0.061	IB	40.19/0.01		42.72/0.08	43.21/0.04			-0.16/0.01	14.40/0.11	44.27/0.06	44.50/0.09
J0847.1+1134	0.198	HB	40.61/0.01	44.31/0.00	44.86/0.01	43.79/0.07	0.33/0.00	0.80/0.00	-0.08/0.01	16.37/0.47	44.43/0.11	44.86/0.15
J0849.1+6607		HB	41.72/0.01			45.05/0.06			-0.09/0.02	15.90/0.67	45.57/0.13	45.99/0.17
J0849.3+0458	1.070	HB	42.87/0.01	45.96/0.01		45.68/0.07	0.44/0.00		-0.06/0.02	16.09/1.46	45.91/0.22	46.47/0.20
J0850.0+4855		HB				45.75/0.02			-0.07/0.07	15.85/3.93	45.10/0.58	45.61/0.20
J0850.2+3500	0.145	IB	40.36/0.02	44.51/0.00	42.94/0.07	43.28/0.11	0.25/0.00	1.58/0.03	-0.16/0.01	14.14/0.17	44.31/0.05	44.54/0.08
J0850.2-1214	0.566	LF	42.55/0.01	45.87/0.04		45.89/0.02	0.40/0.01		-0.22/0.04	13.10/0.12	45.84/0.22	46.02/0.35
J0851.8+5531	0.435	LB		44.81/0.01		44.72/0.08			-0.25/0.01	12.97/0.04	45.48/0.05	45.61/0.16
J0852.6-5756		IU				45.53/0.04			-0.08/0.01	15.08/0.13	45.14/0.08	45.66/0.10
J0854.2+4408	0.382	IB	41.58/0.02	45.18/0.00	44.36/0.07	43.98/0.14	0.35/0.00	1.31/0.03	-0.10/0.01	15.04/0.31	45.05/0.05	45.44/0.06
J0854.8+2006	0.306	IB	42.66/0.01	46.28/0.02	45.40/0.02	45.49/0.02	0.35/0.01	1.32/0.02	-0.11/0.00	14.21/0.04	45.87/0.02	46.25/0.03
J0855.2-0718		IU	43.03/0.01			44.97/0.11			-0.05/0.02	14.65/1.35	44.44/0.10	45.19/0.13
J0856.5+2057	0.539	IB	42.31/0.01	44.97/0.04		45.13/0.07	0.52/0.01		-0.09/0.02	14.52/0.61	44.85/0.07	45.33/0.09
J0856.7-1105		IB	42.72/0.01	45.63/0.04		45.73/0.03	0.47/0.01		-0.10/0.01	14.10/0.17	45.34/0.06	45.78/0.08
J0858.1-1951	0.659	IU	43.26/0.01			45.58/0.06			-0.06/0.01	14.25/0.36	44.98/0.06	45.63/0.08
J0859.1+6219	2.065	HB	42.49/0.02		45.83/0.07	46.49/0.09			-0.09/0.00	15.54/0.13	46.12/0.03	46.54/0.04
J0902.4+2050	2.055	IB	42.91/0.02	46.70/0.13		46.87/0.04	0.31/0.03		-0.18/0.02	14.05/0.16	47.22/0.06	47.42/0.09
J0903.1+4649	1.462	IF	44.11/0.01	45.75/0.01	45.34/0.13	46.23/0.09	0.70/0.00	1.15/0.05	-0.07/0.01	13.86/0.14	45.82/0.03	46.42/0.04

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0904.3+4240		LU	43.07/0.01	43.99/0.02		45.03/0.08	0.83/0.01		-0.05/0.01	13.43/0.43	44.08/0.09	44.83/0.11
J0904.8-5734	0.695	IU	43.58/0.04		45.00/0.06	46.03/0.03			-0.08/0.01	15.05/0.25	46.29/0.21	46.76/0.31
J0904.9+2739	1.488	LF	43.14/0.01	45.46/0.01		46.12/0.13	0.58/0.00		-0.17/0.03	13.17/0.17	45.80/0.17	46.08/0.26
J0905.5+1358	2.065	HB	43.25/0.01	47.24/0.04		46.56/0.04	0.28/0.01		-0.10/0.01	15.44/0.47	46.91/0.06	47.29/0.08
J0906.3-0906		LB	41.91/0.02	45.60/0.02		45.21/0.05	0.34/0.01		-0.19/0.02	13.75/0.16	45.65/0.08	45.85/0.12
J0909.0+2310	1.184	IB	42.36/0.02	46.08/0.04	44.92/0.07	45.63/0.08	0.33/0.01	1.43/0.04	-0.12/0.01	14.70/0.16	45.71/0.05	46.06/0.08
J0909.1+0121	1.024	IF	43.44/0.01	46.15/0.13	45.34/0.08	46.81/0.02	0.51/0.03	1.30/0.08	-0.11/0.00	13.97/0.07	46.20/0.03	46.64/0.04
J0909.6+0157	1.575	IB	43.12/0.01	45.93/0.04		46.77/0.06	0.49/0.01		-0.12/0.01	13.90/0.15	45.85/0.05	46.25/0.07
J0909.8-0229	0.957	IF	43.30/0.01	45.42/0.13		46.19/0.03	0.62/0.03		-0.07/0.02	14.71/0.63	45.34/0.07	45.93/0.09
J0910.5+3329	0.354	IB	41.64/0.02	45.62/0.01	44.13/0.07	44.89/0.04	0.28/0.00	1.55/0.03	-0.14/0.01	14.48/0.09	45.52/0.04	45.80/0.06
J0910.7+3558	0.199	IB	39.94/0.02	44.17/0.01		43.43/0.13	0.24/0.01		-0.16/0.01	14.32/0.17	44.19/0.03	44.43/0.04
J0910.9+2248	2.661	LF	43.37/0.01	45.68/0.04	45.37/0.07	47.11/0.06	0.58/0.01	1.11/0.04	-0.17/0.03	13.14/0.14	46.01/0.13	46.29/0.21
J0911.8+3351	0.456	LB	42.42/0.01	44.72/0.00		44.69/0.11	0.59/0.00		-0.11/0.01	13.73/0.23	44.73/0.07	45.17/0.10
J0912.2+4126	2.563	HF	43.85/0.01	45.84/0.01	45.40/0.08	46.90/0.10	0.64/0.00	1.16/0.03	-0.05/0.00	15.76/0.20	45.81/0.03	46.51/0.04
J0912.4+2800	1.545	HB	41.53/0.06	45.92/0.01		45.26/0.14	0.21/0.01		-0.08/0.01	16.22/0.46	45.75/0.09	46.16/0.12
J0912.7+1556	0.212	IB		44.39/0.00	44.05/0.07	43.09/0.17		1.13/0.03	-0.11/0.02	14.92/0.46	44.28/0.08	44.66/0.14
J0912.9-2104	0.198	HB	41.60/0.02		44.83/0.03	44.21/0.05			-0.08/0.01	15.53/0.49	44.77/0.11	45.24/0.14
J0915.0+5844		LU		43.72/0.04		44.72/0.12			-0.23/0.07	12.57/0.12	44.99/0.51	45.21/1.19
J0915.8+2933	0.101	HB	41.02/0.01	44.52/0.04	43.62/0.07	43.83/0.03	0.37/0.01	1.33/0.04	-0.08/0.01	15.27/0.27	44.20/0.06	44.68/0.07
J0916.3+3857	1.267	IF	43.75/0.01	45.66/0.01	44.72/0.07	45.83/0.10	0.66/0.00	1.35/0.03	-0.07/0.01	14.17/0.14	45.63/0.03	46.21/0.04
J0917.3-0344		HU	41.48/0.02			44.50/0.12			-0.07/0.02	16.38/1.11	44.98/0.17	45.47/0.23
J0920.9+4442	2.190	LF	44.20/0.01	47.10/0.04	46.07/0.07	47.64/0.01	0.47/0.01	1.38/0.04	-0.13/0.01	13.43/0.09	46.75/0.04	47.14/0.06
J0921.0-2258		IU	41.12/0.02		45.24/0.04	44.06/0.18			-0.14/0.12	14.22/1.70	44.68/0.57	44.97/0.20
J0921.8+6215	1.446	LF	43.83/0.01	45.71/0.04	45.14/0.02	46.70/0.03	0.66/0.01	1.21/0.02	-0.13/0.01	13.14/0.06	46.01/0.04	46.43/0.05
J0922.4-0529	0.974	IF	43.21/0.02	45.42/0.04	44.80/0.07	45.78/0.06	0.60/0.01	1.23/0.04	-0.10/0.02	13.75/0.27	45.19/0.10	45.67/0.15
J0922.8-3959	0.591	IU	43.49/0.02	45.57/0.01	44.62/0.04	45.32/0.10	0.62/0.00	1.35/0.02	-0.05/0.00	14.92/0.23	45.31/0.05	46.01/0.06
J0923.3+4127	0.028	LF	39.65/0.01	41.39/0.04		42.43/0.05	0.69/0.01		-0.14/0.02	13.01/0.13	41.81/0.10	42.20/0.14
J0924.0+2816	0.744	LF	42.72/0.02	44.97/0.01		45.51/0.08	0.59/0.00		-0.14/0.01	13.10/0.09	45.33/0.07	45.69/0.09
J0924.2+0534	0.571	HB	40.92/0.04	45.06/0.00	44.92/0.07	45.17/0.08	0.25/0.01	1.05/0.03	-0.08/0.01	16.14/0.31	45.02/0.06	45.44/0.08
J0925.6+5959	1.575	HB	41.93/0.04	45.61/0.13	45.47/0.07	45.37/0.12	0.33/0.03	1.05/0.07	-0.08/0.02	15.65/0.66	45.42/0.09	45.87/0.12
J0925.7+3129	0.260	LB	41.92/0.01	44.13/0.01		43.77/0.13	0.60/0.00		-0.10/0.01	13.73/0.19	44.04/0.06	44.51/0.09
J0926.3+5409	0.850	IB	41.98/0.01	45.01/0.01		45.14/0.10	0.45/0.00		-0.14/0.03	13.96/0.38	45.10/0.13	45.43/0.19
J0927.9-2037	0.348	IF	42.52/0.01	45.39/0.04	44.40/0.05	44.73/0.06	0.48/0.01	1.37/0.03	-0.08/0.01	14.65/0.18	45.15/0.06	45.65/0.08
J0928.5+4048	0.830	IB	41.25/0.02	45.42/0.00	44.36/0.07	44.94/0.12	0.25/0.00	1.39/0.03	-0.13/0.00	14.72/0.07	45.27/0.02	45.57/0.02
J0928.7+7300		LU	42.13/0.01			44.72/0.19			-0.13/0.01	13.66/0.10	44.76/0.04	45.12/0.06

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J0929.4+5013	0.370	IB	42.37/0.01	45.44/0.04	44.13/0.09	44.95/0.04	0.44/0.01	1.49/0.05	-0.11/0.00	14.19/0.06	45.26/0.02	45.65/0.03
J0930.0+4951	0.187	LB	40.37/0.02	43.99/0.01	44.60/0.07	43.10/0.16	0.35/0.00	0.78/0.03	-0.18/0.01	13.86/0.12	44.14/0.05	44.36/0.07
J0930.2+8612		LB	42.20/0.01	44.97/0.03	43.67/0.07	45.51/0.03	0.50/0.01	1.48/0.04	-0.12/0.02	13.78/0.25	44.99/0.17	45.37/0.23
J0934.1+3933	0.044	LB	39.84/0.02	42.09/0.04		42.51/0.08	0.59/0.01		-0.18/0.02	13.11/0.09	42.49/0.09	42.76/0.14
J0937.7+5008	0.276	LF	41.61/0.01	43.96/0.04	43.80/0.07	44.26/0.08	0.57/0.01	1.06/0.04	-0.22/0.02	13.04/0.07	44.76/0.09	44.94/0.15
J0940.9-1337	0.551	IF	42.48/0.01	45.50/0.04		45.29/0.06	0.45/0.01		-0.10/0.01	14.65/0.39	45.47/0.11	45.91/0.14
J0941.6+2727	1.305	IF	43.02/0.01	45.70/0.04		46.03/0.09	0.51/0.01		-0.13/0.01	13.72/0.15	45.76/0.05	46.12/0.08
J0942.1-0756		LB	42.38/0.01	45.11/0.04		44.89/0.09	0.51/0.01		-0.17/0.04	13.13/0.19	44.99/0.26	45.26/0.43
J0945.9+5756	0.229	LB	41.27/0.02	44.57/0.00	42.81/0.07	44.29/0.05	0.40/0.00	1.65/0.03	-0.17/0.01	13.85/0.10	44.60/0.05	44.83/0.08
J0946.2+0103	0.577	HB	41.23/0.02	44.70/0.01	44.81/0.07	44.43/0.16	0.37/0.01	0.96/0.03	-0.08/0.01	15.77/0.51	44.60/0.08	45.09/0.10
J0946.5+1017	1.007	IF	43.16/0.01	45.28/0.01		46.35/0.04	0.62/0.00		-0.08/0.01	14.39/0.25	45.21/0.02	45.77/0.03
J0947.1-2542		HU				45.03/0.06			-0.10/0.01	15.48/0.23	45.44/0.09	45.80/0.16
J0948.6+4041	1.249	IF	43.94/0.01	45.97/0.04	44.97/0.15	46.08/0.09	0.63/0.01	1.37/0.07	-0.10/0.00	13.86/0.08	46.25/0.02	46.72/0.03
J0950.1+4554	0.399	IB	41.40/0.01	44.44/0.01	43.24/0.07	44.57/0.06	0.45/0.00	1.44/0.03	-0.13/0.01	14.20/0.11	44.51/0.05	44.85/0.07
J0953.0-0839		IB	41.97/0.01	45.78/0.02	45.02/0.06	45.54/0.03	0.31/0.01	1.28/0.03	-0.12/0.01	14.87/0.12	45.64/0.04	45.97/0.05
J0953.1-7657c		HU				44.84/0.10			-0.08/0.00	16.14/0.05	44.98/0.01	45.44/0.02
J0954.2+4913	0.380	HB	40.34/0.01	44.36/0.01	44.63/0.06	43.49/0.18	0.27/0.00	0.90/0.02	-0.09/0.00	16.26/0.14	44.52/0.03	44.92/0.04
J0956.6+2515	0.708	IF	43.27/0.01	45.33/0.04	45.08/0.07	45.74/0.05	0.63/0.01	1.09/0.04	-0.11/0.01	13.98/0.10	45.93/0.06	46.34/0.09
J0957.4+4728	1.882	LF	43.85/0.01	46.20/0.04	45.73/0.09	46.53/0.09	0.58/0.01	1.18/0.05	-0.16/0.01	13.16/0.05	46.66/0.04	46.95/0.06
J0957.5-1351	1.323	LF	43.34/0.01	46.27/0.04	44.82/0.07	46.25/0.06	0.47/0.01	1.53/0.04	-0.18/0.04	13.25/0.19	46.08/0.23	46.33/0.39
J0957.6+5523	0.899	IF	44.02/0.00	45.80/0.01	45.09/0.07	46.73/0.01	0.68/0.00	1.26/0.03	-0.06/0.01	14.74/0.23	45.76/0.03	46.40/0.04
J0958.3-0318		HB	40.92/0.03		44.86/0.07	44.24/0.14			-0.07/0.01	16.49/0.30	44.84/0.05	45.31/0.06
J0958.4-6752		HU				44.99/0.08			-0.09	16.07	45.80	46.19/0.00
J0958.6+6534	0.368	IB	42.51/0.01	45.60/0.03	44.13/0.14	45.18/0.03	0.44/0.01	1.54/0.06	-0.11/0.01	14.02/0.10	45.38/0.07	45.77/0.09
J0958.6-2447		HU	42.20/0.01			44.97/0.09			-0.05/0.01	15.55/0.76	44.16/0.11	44.85/0.15
J0959.7+2124	0.365	HB	41.25/0.02	44.63/0.00	44.68/0.07	44.42/0.09	0.39/0.00	0.98/0.03	-0.08/0.01	16.04/0.40	44.69/0.08	45.15/0.11
J1001.0+2913	0.558	IB	42.32/0.01	45.69/0.04	43.67/0.07	45.24/0.05	0.39/0.01	1.74/0.04	-0.14/0.01	13.80/0.12	45.19/0.09	45.53/0.13
J1002.3+2220	1.985	HB	42.25/0.03	46.19/0.01		46.36/0.10	0.29/0.01		-0.08/0.01	16.01/0.27	46.02/0.05	46.46/0.07
J1003.6+2608	0.335	LU	42.21/0.01	43.60/0.01		44.33/0.10	0.75/0.01		-0.09/0.01	13.42/0.23	43.72/0.07	44.28/0.11
J1006.7+3453	0.612	HB	40.93/0.03	44.85/0.01	44.72/0.07	44.37/0.14	0.29/0.01	1.05/0.03	-0.09/0.01	15.62/0.35	45.00/0.08	45.39/0.10
J1006.7-2159	0.330	IF	41.91/0.02	45.22/0.04		45.07/0.04	0.40/0.01		-0.10/0.01	14.49/0.30	44.96/0.05	45.38/0.06
J1007.4-3334	1.837	LF	43.64/0.01	45.66/0.04		46.47/0.12	0.63/0.01		-0.12/0.03	13.26/0.40	45.86/0.20	46.28/0.28
J1007.8+0026	0.098	IU	41.14/0.02	44.29/0.00	42.53/0.12	43.15/0.09	0.43/0.00	1.65/0.05	-0.10/0.01	14.13/0.27	43.91/0.09	44.34/0.12
J1007.9+0621	1.720	IB	43.70/0.01	46.77/0.04	45.48/0.07	46.80/0.04	0.44/0.01	1.48/0.04	-0.12/0.01	14.11/0.18	46.62/0.07	46.98/0.10
J1009.0-3137		IU	42.34/0.02			45.12/0.09			-0.11	14.21	44.84	45.23/0.00

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1010.2-3120	0.143	HB	40.66/0.02		44.39/0.03	43.58/0.07			-0.10/0.00	15.42/0.10	44.74/0.03	45.10/0.04
J1010.8-0158	0.887	IF	43.27/0.01	45.30/0.08		45.54/0.09	0.63/0.02		-0.10/0.02	13.84/0.26	45.39/0.08	45.88/0.11
J1012.2+0631	0.727	IF	42.99/0.01	45.70/0.01	43.11/0.07	45.43/0.06	0.51/0.00	1.96/0.03	-0.08/0.02	14.50/0.59	45.31/0.13	45.83/0.18
J1012.6+2439	1.805	IF	43.04/0.01	45.76/0.01	45.59/0.07	47.12/0.02	0.51/0.00	1.06/0.03	-0.10/0.03	14.46/0.58	45.63/0.06	46.08/0.09
J1012.7+4229	0.365	HB	41.54/0.01	44.58/0.01	44.86/0.07	44.18/0.08	0.45/0.00	0.90/0.03	-0.06/0.01	16.93/0.56	44.84/0.11	45.40/0.14
J1013.5+3440	1.414	IF	43.39/0.01	45.52/0.04	45.02/0.20	46.31/0.08	0.61/0.01	1.18/0.09	-0.09/0.01	13.96/0.27	45.69/0.07	46.20/0.09
J1014.2+4115		IU	41.62/0.01	43.66/0.03		44.85/0.10	0.63/0.01		-0.08/0.03	14.05/0.65	43.82/0.10	44.35/0.13
J1015.0+4925	0.212	HB	41.73/0.01	44.69/0.04	44.55/0.07	45.07/0.01	0.46/0.01	1.05/0.04	-0.06/0.01	16.47/0.34	45.15/0.07	45.66/0.09
J1016.0+0513	1.714	LF	43.60/0.01	45.73/0.01		46.99/0.03	0.62/0.00		-0.13/0.01	13.42/0.10	46.00/0.06	46.38/0.09
J1016.0-0635		LU	41.57/0.01			44.90/0.12			-0.42/0.19	12.57/0.22	46.40/1.67	46.33/0.20
J1016.1+5555	2.195	HU	43.31/0.01	45.99/0.14		46.73/0.07	0.52/0.03		-0.07/0.02	15.39/0.97	45.99/0.07	46.53/0.10
J1018.3+3542	1.226	IF	43.56/0.00	46.08/0.14	45.16/0.14	45.94/0.09	0.54/0.03	1.34/0.10	-0.10/0.01	14.00/0.09	46.05/0.04	46.50/0.05
J1018.4-3119	0.794	LF	42.92/0.01	45.50/0.04		45.71/0.07	0.53/0.01		-0.15/0.01	13.52/0.08	45.88/0.06	46.19/0.09
J1018.5+0530	1.944	LF	43.54/0.01	45.57/0.04		46.81/0.06	0.63/0.01		-0.18/0.02	13.11/0.12	46.44/0.13	46.70/0.20
J1018.8+5913	2.025	IB	43.12/0.01	46.61/0.01	44.99/0.07	46.23/0.08	0.37/0.00	1.60/0.03	-0.13/0.02	14.38/0.27	46.46/0.10	46.79/0.15
J1020.0+6323	2.025	IB	43.16/0.01	46.18/0.14	45.55/0.07	46.47/0.07	0.45/0.03	1.23/0.08	-0.13/0.03	13.91/0.37	46.39/0.14	46.73/0.19
J1022.8-0113	2.045	HB	42.69/0.01		46.95/0.04	46.40/0.06			-0.07/0.00	17.07/0.28	46.86/0.06	47.33/0.08
J1023.1+3952	1.254	IF	43.79/0.01	46.24/0.04	45.41/0.13	46.10/0.09	0.56/0.01	1.31/0.06	-0.10/0.01	13.95/0.23	46.05/0.06	46.50/0.09
J1023.7+3000	0.433	IB	40.68/0.02	44.60/0.01	44.08/0.07	44.22/0.12	0.29/0.01	1.19/0.03	-0.12/0.01	14.98/0.16	44.66/0.04	44.99/0.05
J1023.9-4335		HB		46.04/0.02	45.67/0.07	45.30/0.04		1.14/0.03	-0.10/0.01	15.60/0.28	45.77/0.05	46.15/0.08
J1024.1-3232	1.568	IF	43.59/0.02			46.90/0.04			-0.09/0.02	13.65/0.27	45.54/0.11	46.06/0.15
J1024.8+0105	0.315	LU	41.64/0.01	43.27/0.02		44.51/0.09	0.71/0.01		-0.12/0.03	13.24/0.33	43.54/0.18	43.98/0.29
J1025.1+2333	0.165	LB	40.96/0.01	44.25/0.00	42.61/0.07	43.77/0.09	0.40/0.00	1.61/0.03	-0.14/0.01	13.91/0.11	44.21/0.05	44.51/0.08
J1026.4-8542		HB	42.89/0.04	45.69/0.02		45.27/0.05	0.49/0.01		-0.05/0.02	17.68/2.38	46.02/0.51	46.61/0.20
J1026.5+7423	0.879	IU	42.70/0.01			45.62/0.10			-0.10/0.02	13.80/0.36	44.81/0.14	45.29/0.21
J1026.9-1750	0.267	HB	40.42/0.02		44.32/0.06	44.73/0.03			-0.10/0.01	15.43/0.16	44.54/0.05	44.90/0.07
J1027.0+0609	0.450	IB	40.85/0.03	44.46/0.01	44.42/0.07	44.61/0.10	0.35/0.01		-0.14/0.01	14.21/0.20	44.47/0.04	44.77/0.06
J1027.7+6316	0.580	IB	41.47/0.02	44.91/0.01		44.78/0.09	0.38/0.00	1.18/0.03	-0.09/0.01	15.09/0.33	44.79/0.06	45.21/0.08
J1028.0+1829	0.856	LU	42.06/0.01	44.87/0.01		45.37/0.10	0.49/0.00		-0.14/0.04	13.66/0.46	45.01/0.18	45.33/0.27
J1028.5-0235	0.476	LF	41.82/0.01	44.61/0.01	44.00/0.05	44.75/0.11	0.50/0.00	1.23/0.02	-0.27/0.02	12.95/0.06	45.45/0.11	45.54/0.18
J1030.4-2030		IU	41.03/0.02			44.94/0.06			-0.12	15.03	44.96	45.29/0.00
J1031.0+7440	0.123	HU	40.98/0.02		43.08/0.07	43.43/0.09			-0.06/0.01	15.79/0.50	43.55/0.08	44.16/0.10
J1031.2+5053	0.361	HB	41.21/0.01	44.35/0.09	45.54/0.07	44.57/0.04	0.43/0.02	0.56/0.06	-0.07/0.00	17.06/0.18	45.50/0.04	45.96/0.06
J1031.6+6021	1.230	IF	43.23/0.01	45.98/0.00	44.97/0.07	46.37/0.06	0.50/0.00	1.37/0.03	-0.12/0.01	13.99/0.21	45.98/0.05	46.35/0.08
J1032.7+3735	0.528	HB	41.90/0.01	45.10/0.01		45.34/0.05	0.42/0.00		-0.07/0.02	15.74/0.94	45.07/0.13	45.59/0.16

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1033.2+4116	1.117	LF	43.30/0.00	45.00/0.04	44.96/0.07	46.35/0.03	0.69/0.01	1.01/0.04	-0.14/0.01	13.04/0.07	45.78/0.05	46.14/0.07
J1033.8+6051	1.401	IF	43.49/0.01	45.14/0.04	44.85/0.15	47.08/0.03	0.70/0.01	1.11/0.07	-0.08/0.01	14.21/0.29	45.84/0.05	46.37/0.06
J1035.2+5545	0.315	LU	41.62/0.01	43.42/0.02	44.26/0.13	44.26/0.02	0.68/0.01		-0.08/0.02	13.83/0.40	43.53/0.08	44.09/0.11
J1037.0-2934	0.312	IF	42.54/0.01	44.66/0.04	44.17/0.11	44.61/0.08	0.62/0.01	1.18/0.05	-0.12/0.01	13.92/0.07	45.39/0.06	45.78/0.08
J1037.4-3742	1.821	LF	43.56/0.01	45.97/0.04		46.45/0.13	0.56/0.01		-0.17/0.02	13.18/0.17	46.26/0.12	46.56/0.17
J1037.5+5711	0.830	HB	42.24/0.01	46.18/0.01	45.10/0.07	46.08/0.02	0.29/0.00	1.40/0.03	-0.12/0.01	15.05/0.13	46.28/0.06	46.59/0.08
J1037.5-2821	1.066	IF	43.21/0.01	45.63/0.02		46.19/0.05	0.56/0.01		-0.07/0.02	14.71/0.71	45.50/0.04	46.06/0.06
J1040.4+0615	2.715	LU	42.89/0.01	46.07/0.01		47.36/0.04	0.43/0.00		-0.25/0.02	13.13/0.07	46.68/0.12	46.80/0.19
J1040.8+1342		HU				44.38/0.13			-0.08/0.02	16.55/0.85	44.74/0.17	45.19/0.25
J1040.9-1205		HU	41.11/0.02	44.81/0.04	44.79/0.01	44.78/0.10	0.33/0.01	1.01/0.02	-0.08/0.01	16.25/0.40	44.94/0.11	45.39/0.14
J1041.8+3901	0.208	IB	40.66/0.01	44.46/0.00	43.38/0.07	43.56/0.12	0.31/0.00	1.40/0.03	-0.14/0.02	14.13/0.25	44.31/0.07	44.62/0.09
J1043.1+2407	0.562	LF	42.54/0.01	45.70/0.04	44.46/0.07	45.32/0.05	0.43/0.01	1.46/0.04	-0.19/0.01	13.10/0.09	45.53/0.08	45.78/0.12
J1044.4+8058	1.254	LF	43.65/0.01	45.81/0.04	45.50/0.08	46.15/0.08	0.61/0.01	1.11/0.04	-0.13/0.01	13.36/0.11	46.01/0.06	46.38/0.08
J1045.7-2926	2.128	IF	44.15/0.01		43.95/0.07	47.01/0.05			-0.07/0.01	13.68/0.24	45.38/0.07	46.05/0.10
J1046.9-2531	0.254	HB	40.46/0.03			43.80/0.12			-0.05/0.01	18.16/1.08	44.11/0.18	44.71/0.22
J1047.6+7240		IB	41.60/0.01			45.17/0.05			-0.13/0.09	13.98/1.21	44.77/0.34	45.10/0.48
J1048.4+7144	1.150	LF	43.53/0.01	46.07/0.04	44.85/0.03	46.78/0.02	0.54/0.01	1.45/0.02	-0.14/0.01	13.20/0.09	46.12/0.05	46.48/0.07
J1048.6+2338	0.319	LB	40.93/0.02	44.99/0.04		44.59/0.06	0.27/0.01		-0.26/0.03	13.05/0.12	44.93/0.18	45.03/0.28
J1049.8+1425	1.535	LU	43.02/0.01	45.21/0.01		46.25/0.08	0.61/0.01		-0.15/0.07	13.24/0.44	45.47/0.43	45.80/0.67
J1051.4+3941	0.498	HB	40.88/0.02	44.75/0.01	44.90/0.07	44.31/0.11	0.30/0.01	0.94/0.03	-0.09/0.01	15.99/0.28	44.94/0.06	45.36/0.08
J1051.8+0105	0.265	HB	40.56/0.02	44.05/0.02		44.14/0.09	0.37/0.01		-0.08/0.02	15.64/0.74	44.06/0.10	44.51/0.13
J1052.8-3741		HU	41.77/0.02			44.76/0.10			-0.08/0.03	15.65/1.18	45.27/0.23	45.71/0.31
J1053.7+4929	0.140	IB	40.59/0.01	44.54/0.00	42.87/0.07	43.55/0.06	0.29/0.00	1.62/0.03	-0.17/0.01	14.03/0.15	44.31/0.06	44.53/0.10
J1054.5+2210	2.055	IB	42.95/0.01	46.47/0.04	45.42/0.07	47.02/0.03	0.36/0.01	1.39/0.04	-0.15/0.01	14.36/0.10	46.81/0.05	47.07/0.07
J1057.3-2341	1.125	LF	42.79/0.01	44.72/0.04		45.93/0.08	0.65/0.01		-0.19/0.04	12.93/0.13	45.54/0.25	45.80/0.38
J1057.6-2754	0.092	IB	40.21/0.01		43.20/0.07	42.89/0.12			-0.13/0.02	14.39/0.28	43.98/0.12	44.29/0.16
J1058.1+7010	2.492	IF	43.78/0.01	46.13/0.04		47.15/0.06	0.57/0.01		-0.12/0.01	13.57/0.23	46.44/0.10	46.84/0.14
J1058.4+8112	0.706	LF	42.62/0.01	45.25/0.04	44.60/0.14	45.56/0.06	0.52/0.01	1.24/0.07	-0.18/0.01	13.07/0.12	45.72/0.08	45.97/0.11
J1058.5+0133	0.890	IB	44.00/0.01	45.75/0.08	45.29/0.03	46.71/0.02	0.68/0.02	1.17/0.04	-0.10/0.00	13.79/0.07	46.24/0.04	46.73/0.06
J1058.5-8003	0.581	IB	42.91/0.14	45.48/0.03	44.40/0.06	45.95/0.02	0.53/0.03	1.40/0.04	-0.13/0.01	14.11/0.07	46.30/0.10	46.65/0.13
J1058.6+5627	0.143	IB	41.15/0.01	45.04/0.04	43.41/0.07	44.45/0.02	0.30/0.01	1.60/0.04	-0.11/0.00	14.82/0.09	44.50/0.03	44.88/0.05
J1059.2-1133		IB	42.46/0.01			45.80/0.03			-0.13/0.02	14.02/0.23	45.51/0.07	45.84/0.11
J1059.9+2056	0.392	LF	41.78/0.01	44.30/0.04		44.51/0.12	0.55/0.01		-0.25/0.02	12.85/0.06	45.10/0.15	45.24/0.24
J1100.5+4020	0.225	HB	40.46/0.02	44.52/0.01	44.29/0.07	43.87/0.08	0.27/0.00	1.08/0.03	-0.09/0.01	16.08/0.33	44.52/0.07	44.93/0.09
J1101.5+4106	2.065	HB	42.49/0.02	46.20/0.01	45.70/0.07	45.93/0.11	0.33/0.01	1.19/0.03	-0.09/0.01	15.58/0.22	46.04/0.03	46.47/0.05

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1103.1+1155	0.914	IF	42.88/0.01	45.37/0.00		45.88/0.06	0.55/0.00		-0.10/0.02	14.09/0.31	45.37/0.06	45.83/0.08
J1103.5-2329	0.186	HB			45.02/0.03	43.57/0.09			-0.05/0.01	18.10/0.44	45.08/0.08	45.65/0.08
J1103.9-5357		IB	42.91/0.04			45.99/0.02			-0.09/0.03	14.96/0.87	45.88/0.14	46.34/0.19
J1104.3+0730	0.630	HB	42.03/0.01	45.67/0.01		45.36/0.06	0.34/0.00		-0.10/0.03	15.20/0.78	45.65/0.09	46.04/0.12
J1104.4+3812	0.031	HB	40.18/0.02	44.26/0.02	44.09/0.00	43.89/0.01	0.26/0.01	1.06/0.01	-0.08/0.00	16.68/0.11	44.55/0.03	44.97/0.04
J1105.9+2814	0.844	LF	42.75/0.01	45.52/0.01		45.98/0.04	0.50/0.00		-0.21/0.03	13.07/0.13	45.78/0.20	45.98/0.32
J1106.4-3643		LU	41.69/0.01			45.26/0.05			-0.15/0.03	13.75/0.35	44.69/0.15	45.00/0.23
J1107.4-4447	1.598	LF	44.33/0.04	46.54/0.03	45.44/0.07	46.88/0.05	0.60/0.01	1.41/0.04	-0.14/0.01	13.04/0.06	46.37/0.04	46.75/0.06
J1107.5+0223	1.082	IB	41.94/0.02	45.62/0.00		45.72/0.08	0.34/0.00		-0.14/0.02	14.32/0.35	45.68/0.05	45.97/0.07
J1107.8+1502	0.602	HB	41.73/0.01	45.20/0.14	45.23/0.07	45.15/0.06	0.37/0.03	0.99/0.07	-0.08/0.01	15.92/0.47	45.20/0.08	45.66/0.11
J1109.4+2411	0.482	IB	41.43/0.02	44.78/0.01		44.54/0.10	0.39/0.00		-0.11/0.05	14.54/1.24	44.63/0.06	45.01/0.09
J1109.6+3734	0.397	HB	40.36/0.07	44.62/0.01	44.35/0.07	43.90/0.16	0.23/0.01	1.10/0.03	-0.11/0.01	15.42/0.13	44.65/0.02	44.99/0.03
J1110.0+7134		HB	41.79/0.02		44.53/0.07	44.84/0.08			-0.07/0.01	15.88/0.70	44.97/0.13	45.48/0.16
J1112.4+3449	1.956	IF	43.32/0.01	45.96/0.01		46.91/0.04	0.52/0.00		-0.08/0.01	14.82/0.40	45.99/0.02	46.49/0.03
J1112.6+1749	0.421	HB	40.93/0.02			43.71/0.24			-0.08/0.00	16.04/0.14	44.68/0.02	45.13/0.03
J1117.0+2014	0.139	HB	40.78/0.01	44.33/0.05	44.73/0.07	44.06/0.03	0.36/0.01	0.85/0.04	-0.08/0.01	16.55/0.27	44.66/0.06	45.10/0.09
J1117.3+2546	0.360	IB	40.74/0.03	45.20/0.01	43.82/0.07	44.31/0.10	0.19/0.01	1.51/0.03	-0.14/0.01	14.71/0.21	44.89/0.07	45.18/0.10
J1117.7-4632	0.713	IF	43.65/0.02	45.92/0.03	45.27/0.13	45.58/0.07	0.59/0.01	1.24/0.06	-0.08/0.01	14.25/0.19	45.56/0.03	46.11/0.05
J1117.9+5355	0.720	IB	41.35/0.02	45.59/0.00	44.45/0.07	45.36/0.05	0.23/0.00	1.42/0.03	-0.14/0.01	14.59/0.11	45.44/0.02	45.73/0.03
J1119.7-3046	0.412	HB	40.72/0.05		44.76/0.07	43.83/0.18			-0.07/0.02	16.71/1.07	44.56/0.16	45.04/0.21
J1120.8+4212	0.124	HB	40.05/0.02	43.98/0.14	43.73/0.07	43.64/0.04	0.29/0.03	1.09/0.07	-0.08/0.00	16.19/0.15	44.13/0.04	44.55/0.05
J1121.4-0554	1.297	IF	43.53/0.01		45.00/0.07	46.80/0.03			-0.09/0.01	14.32/0.12	46.02/0.07	46.50/0.10
J1123.6+7231		HB	41.14/0.02	44.83/0.13	45.09/0.07	44.05/0.24	0.33/0.03	0.90/0.07	-0.06/0.02	17.20/1.54	44.98/0.29	45.50/0.20
J1124.1+2337	1.549	LF	43.63/0.01	45.45/0.04		46.41/0.07	0.67/0.01	1.02/0.03	-0.15/0.02	13.16/0.15	46.03/0.12	46.36/0.19
J1124.9+4932	2.145	HB	42.49/0.02	46.36/0.01	46.29/0.07	45.99/0.09	0.30/0.01		-0.07/0.01	16.27/0.26	46.25/0.05	46.71/0.06
J1125.0-2101		IU	41.53/0.01			44.70/0.09			-0.13/0.01	14.67/0.09	45.57/0.08	45.86/0.12
J1125.5-3558	0.284	HB	41.73/0.02			44.47/0.05			-0.08/0.06	16.07/2.79	45.11/0.57	45.57/0.20
J1125.8-0745	0.279	IB	40.99/0.02		44.39/0.06	44.01/0.11			-0.11/0.01	14.98/0.28	44.68/0.08	45.06/0.10
J1125.9+2007	0.133	IF	41.57/0.02	44.24/0.00		43.42/0.10	0.52/0.00		-0.09/0.01	14.18/0.29	44.02/0.06	44.53/0.08
J1126.7-3834		LU	42.69/0.02			45.00/0.08			-0.11/0.02	13.17/0.19	44.33/0.10	44.79/0.16
J1127.0-1857	1.048	LF	43.31/0.01	45.25/0.04	46.20/0.04	46.90/0.01	0.65/0.01	0.65/0.03	-0.16/0.01	12.99/0.07	46.02/0.05	46.35/0.07
J1127.8+3618	0.884	LF	42.31/0.02	44.72/0.04		45.94/0.05	0.56/0.01		-0.18/0.03	12.96/0.15	45.12/0.16	45.40/0.23
J1128.0+5921	1.795	LF	43.51/0.01	45.77/0.04	45.43/0.11	46.33/0.12	0.59/0.01	1.12/0.06	-0.14/0.02	13.39/0.15	46.03/0.08	46.39/0.12
J1129.0+3705	0.445	LB	41.60/0.01	44.44/0.01		44.75/0.08	0.49/0.00		-0.15/0.02	13.50/0.17	44.60/0.12	44.90/0.17
J1129.4-4215	0.156	IU				43.74/0.10			-0.10/0.01	15.13/0.18	44.76/0.04	45.17/0.07

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1129.9-1446	1.184	IF	44.49/0.01	45.91/0.04	45.76/0.06	46.56/0.05	0.74/0.01	1.06/0.04	-0.09/0.00	13.99/0.10	46.42/0.03	46.93/0.05
J1131.1+5810	0.360	IB	41.27/0.02	45.20/0.00	43.30/0.07	44.60/0.06	0.29/0.00	1.70/0.03	-0.17/0.01	13.96/0.05	45.24/0.03	45.47/0.04
J1131.4+3819	1.740	LF	43.85/0.01	45.71/0.04	45.55/0.17	46.52/0.09	0.66/0.01	1.06/0.08	-0.16/0.01	13.12/0.04	46.47/0.04	46.78/0.05
J1131.9-0503	0.266	LU	42.10/0.02	43.83/0.04	44.45/0.08	44.52/0.09	0.69/0.01	0.69/0.01	-0.13/0.01	12.96/0.14	44.21/0.08	44.62/0.10
J1132.7+0034	1.223	IB	43.39/0.01	46.20/0.01	44.71/0.07	46.51/0.03	0.49/0.00	1.55/0.03	-0.12/0.01	13.94/0.16	46.15/0.05	46.54/0.07
J1132.8+1015	0.540	IF	42.94/0.01	45.47/0.01	44.49/0.07	44.98/0.13	0.54/0.00	1.36/0.03	-0.08/0.01	14.73/0.26	45.43/0.04	45.93/0.06
J1136.1-7411		LU	43.00/0.04			45.36/0.06			-0.11/0.02	13.08/0.43	44.47/0.19	44.96/0.31
J1136.4+3405	1.337	LF	42.93/0.01	45.37/0.04		46.17/0.10	0.56/0.01		-0.15/0.01	13.32/0.10	45.60/0.07	45.92/0.11
J1136.6+6736	0.136	HB	40.41/0.01	44.45/0.02	44.20/0.07	43.49/0.05	0.27/0.01	1.09/0.03	-0.07/0.01	16.55/0.27	44.44/0.07	44.89/0.09
J1136.6+7009	0.045	HB	40.28/0.02	44.18/0.02	43.49/0.07	42.89/0.03	0.30/0.01	1.25/0.03	-0.07/0.01	16.60/0.51	44.16/0.13	44.64/0.17
J1136.9+2551	0.156	IB	40.08/0.02	44.34/0.00	42.87/0.07	43.22/0.13	0.23/0.00	1.55/0.03	-0.16/0.01	14.23/0.19	44.21/0.06	44.46/0.08
J1138.2+4905	0.265	LU	40.98/0.01	43.13/0.02		44.04/0.14	0.61/0.01		-0.12/0.02	13.47/0.24	43.29/0.14	43.71/0.19
J1140.4+1529	0.244	IB	41.12/0.01	44.62/0.00	44.29/0.07	42.97/0.22	0.37/0.00	1.12/0.03	-0.10/0.01	14.96/0.22	44.56/0.03	44.96/0.04
J1141.2+6805		IU				44.24/0.11			-0.09	15.02	44.40	44.83/0.00
J1141.6-1406		HU				44.99/0.07			-0.08	15.76	45.08	45.54/0.00
J1142.0+1546	0.299	LB	41.98/0.01	43.95/0.04		44.62/0.06	0.64/0.01		-0.10/0.02	13.40/0.29	43.76/0.15	44.24/0.23
J1143.0+6123	0.475	IB	41.80/0.01	45.00/0.01	43.55/0.07	45.06/0.04	0.42/0.00	1.54/0.03	-0.12/0.01	14.18/0.14	44.85/0.07	45.21/0.10
J1145.8+4425	0.300	LF	42.02/0.01	44.57/0.00		43.81/0.13	0.54/0.00		-0.11/0.02	13.86/0.39	44.47/0.09	44.91/0.13
J1146.8+3958	1.089	LF	43.14/0.01	45.53/0.04		46.74/0.02	0.57/0.01		-0.15/0.01	13.18/0.07	45.97/0.05	46.30/0.07
J1147.0-3811	1.048	LF	43.84/0.01	46.30/0.04	45.66/0.02	46.36/0.03	0.55/0.01	1.24/0.02	-0.19/0.01	13.02/0.08	46.46/0.06	46.70/0.10
J1147.8-0725	1.342	IF	43.66/0.01	45.97/0.04	45.05/0.07	46.60/0.04	0.58/0.01	1.34/0.04	-0.09/0.01	14.08/0.10	46.00/0.06	46.50/0.08
J1149.5+2443	0.402	HB			44.90/0.07	44.52/0.12			-0.08/0.01	16.54/0.71	44.79/0.15	45.23/0.22
J1150.3+2417	0.180	LB	41.90/0.01	44.76/0.04	41.75/0.07	44.37/0.04	0.48/0.01	2.11/0.04	-0.13/0.01	13.78/0.07	44.64/0.04	45.00/0.06
J1150.5+4155	1.018	IB	41.91/0.02	46.16/0.01	45.24/0.07	46.08/0.03	0.23/0.01	1.34/0.03	-0.13/0.01	14.90/0.12	46.00/0.03	46.30/0.04
J1151.4+5858	0.118	IB	40.89/0.01	44.40/0.01	43.00/0.07	43.60/0.04	0.37/0.00	1.52/0.03	-0.11/0.01	14.89/0.31	44.17/0.10	44.54/0.14
J1151.4-1346	0.838	IB	41.93/0.02			45.29/0.09			-0.11/0.12	14.56/2.70	45.22/0.34	45.60/0.20
J1152.3-0841	2.370	LF	44.09/0.01		45.58/0.13	47.16/0.05			-0.17/0.02	13.07/0.16	46.55/0.12	46.84/0.20
J1153.4+4033	0.925	IF	43.53/0.01	45.16/0.01		45.05/0.11	0.71/0.00		-0.06/0.00	14.56/0.20	45.13/0.01	45.77/0.02
J1153.4+4932	0.334	LF	42.76/0.01	44.83/0.01	44.59/0.07	45.28/0.02	0.62/0.00	1.09/0.03	-0.13/0.01	13.33/0.08	45.09/0.04	45.48/0.05
J1154.0-3243		LU	42.29/0.01			45.32/0.04			-0.17/0.02	13.29/0.12	45.12/0.09	45.39/0.14
J1154.2-0010	0.254	HB	40.34/0.04	44.30/0.00	44.26/0.05	43.92/0.09	0.28/0.01	1.01/0.02	-0.09/0.01	15.60/0.26	44.19/0.04	44.61/0.06
J1154.3+6023	1.120	LF		45.17/0.01		46.11/0.06			-0.26/0.09	12.91/0.24	45.86/0.51	45.98/1.51
J1155.9+6136	1.525	LB	41.43/0.04	45.87/0.01		45.25/0.14	0.20/0.01		-0.25/0.03	13.48/0.17	46.18/0.20	46.26/0.30
J1158.8+0941	0.390	IB	41.23/0.01	44.62/0.00		44.77/0.06	0.39/0.00		-0.11/0.00	14.59/0.06	44.61/0.00	44.97/0.00
J1159.2-2141	0.617	IF	42.62/0.01	44.74/0.04		45.69/0.04	0.62/0.01		-0.08/0.04	14.29/0.82	45.05/0.14	45.58/0.18

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1159.3-2226	0.565	LU	43.11/0.01			45.74/0.04			-0.08/0.03	13.78/0.59	44.71/0.19	45.28/0.28
J1159.5+2914	0.725	LF	43.47/0.01	45.57/0.04	45.13/0.06	46.54/0.01	0.62/0.01	1.16/0.04		13.04/0.07	45.89/0.04	46.29/0.05
J1200.8+1228	0.415	LU	41.41/0.02	44.43/0.01		44.71/0.08	0.45/0.00		-0.16/0.03	13.71/0.31	44.57/0.12	44.85/0.18
J1203.1+6029	0.066	LB	40.38/0.01	44.12/0.03	42.32/0.07	43.17/0.04	0.32/0.01	1.67/0.03	-0.18/0.01	13.85/0.12	44.03/0.06	44.24/0.10
J1203.2+3847	0.805	IB	41.55/0.02	45.24/0.01	44.27/0.07	45.27/0.11	0.33/0.01	1.36/0.03	-0.11/0.02	14.57/0.42	45.00/0.15	45.36/0.20
J1203.5-3925		HU	41.78/0.01			44.44/0.12			-0.08/0.00	15.72/0.03	45.23/0.01	45.68/0.01
J1204.0+1144	0.296	IB	40.63/0.02	44.60/0.00	43.91/0.07	44.23/0.08	0.28/0.00	1.26/0.03	-0.12/0.01	14.89/0.11	44.51/0.02	44.85/0.02
J1204.3-0708	0.184	IB			43.55/0.10	44.10/0.05			-0.14/0.01	14.35/0.12	44.63/0.06	44.92/0.12
J1205.4+0412	1.875	IF	43.19/0.01	45.36/0.02		46.47/0.12	0.61/0.01		-0.09/0.04	13.68/0.69	45.55/0.16	46.09/0.18
J1205.8-2636	0.789	IF	43.55/0.02	46.75/0.04	45.10/0.13	45.85/0.06	0.42/0.01	1.61/0.06	-0.08/0.02	14.14/0.45	45.81/0.12	46.35/0.15
J1207.6-2232		LU	41.74/0.01			45.14/0.09			-0.13	13.71	44.29	44.66/0.00
J1208.7+5442	1.345	LF	43.28/0.01	45.73/0.01		46.81/0.03	0.56/0.00		-0.12/0.01	13.50/0.15	45.85/0.06	46.27/0.08
J1209.4+4119	0.377	IB	42.11/0.01	45.14/0.04	44.15/0.09	44.49/0.07	0.45/0.01	1.36/0.05	-0.11/0.01	14.28/0.13	44.96/0.06	45.37/0.08
J1209.8+1810	0.845	LF		45.35/0.01		45.80/0.05			-0.22/0.03	13.09/0.12	45.86/0.22	46.04/0.56
J1212.6+5135	0.796	HB	41.90/0.01	45.33/0.02	44.90/0.07	45.21/0.09	0.38/0.01	1.16/0.03	-0.08/0.01	15.42/0.38	45.04/0.05	45.52/0.07
J1213.1-2619	0.278	IB	40.26/0.03	44.53/0.12	44.35/0.07	44.06/0.11	0.23/0.03	1.06/0.07	-0.12/0.01	14.90/0.24	44.32/0.10	44.63/0.14
J1213.7+1306	1.139	IF		45.89/0.00	44.38/0.07	46.08/0.07		1.56/0.03	-0.08/0.01	13.89/0.13	45.93/0.03	46.50/0.03
J1215.0+5002	1.545	IB	42.85/0.01	46.47/0.01		45.96/0.07	0.35/0.00		-0.13/0.01	14.36/0.15	46.46/0.02	46.77/0.02
J1215.1+1658	1.132	LF	43.13/0.01	45.45/0.04	44.81/0.07	46.01/0.06	0.58/0.01	1.24/0.04	-0.13/0.02	13.10/0.13	45.51/0.09	45.93/0.11
J1217.8+3007	0.130	IB	41.28/0.02	44.69/0.12	44.35/0.07	44.59/0.02	0.38/0.03	1.13/0.07	-0.10/0.01	14.93/0.13	44.66/0.06	45.08/0.07
J1218.0-0029	0.419	IB	42.42/0.02	44.94/0.01		44.99/0.07	0.55/0.00		-0.09/0.02	14.03/0.37	44.82/0.07	45.31/0.10
J1218.4-0121	0.415	IB	42.14/0.01	45.44/0.02		45.12/0.05	0.40/0.01		-0.13/0.02	14.02/0.29	44.96/0.07	45.31/0.11
J1218.5+6912		HU	40.87/0.03			44.76/0.14			-0.04	19.40	45.39	45.96/0.00
J1218.8-4827		HU				45.19/0.07			-0.08/0.01	16.05/0.51	45.43/0.12	45.88/0.16
J1219.7-0314	0.299	IB	40.92/0.02	44.63/0.04	44.31/0.08	44.39/0.07	0.33/0.01	1.12/0.04	-0.11/0.01	15.19/0.18	44.57/0.04	44.93/0.05
J1220.2+3434	0.643	IB	42.55/0.01	45.57/0.04	44.15/0.07	45.25/0.06	0.46/0.01	1.52/0.04	-0.12/0.01	14.11/0.10	45.54/0.03	45.89/0.04
J1221.3+3010	0.184	HB	40.87/0.01	44.38/0.01	44.59/0.07	44.49/0.02	0.37/0.01	0.92/0.03	-0.07/0.00	16.92/0.23	45.00/0.06	45.46/0.07
J1221.4+2814	0.103	IB	41.37/0.01	44.88/0.04	43.49/0.04	44.27/0.02	0.36/0.01	1.51/0.03	-0.10/0.01	14.83/0.10	44.70/0.06	45.09/0.08
J1222.4+0414	0.966	IF	43.42/0.01	46.01/0.04	45.35/0.07	46.27/0.05	0.53/0.01	1.24/0.04	-0.10/0.01	13.74/0.17	46.08/0.06	46.54/0.07
J1222.7+8041		IB	42.89/0.01		44.07/0.22	45.45/0.04			-0.07/0.01	13.96/0.33	44.71/0.13	45.32/0.16
J1224.5+2436	0.218	IB	40.59/0.02	44.64/0.04	43.83/0.06	44.11/0.05	0.27/0.01	1.30/0.04	-0.11/0.01	15.09/0.18	44.46/0.06	44.80/0.09
J1224.5+4957	1.064	HF	42.27/0.01	46.29/0.14		45.79/0.09	0.27/0.03		-0.11/0.02	15.03/0.63	46.14/0.05	46.50/0.06
J1224.6+4332	1.075	IB	43.17/0.01	44.99/0.01		45.99/0.07	0.67/0.00		-0.07/0.01	14.06/0.42	44.94/0.06	45.54/0.08
J1224.9+2122	0.432	IF	43.12/0.02	45.62/0.01	44.63/0.07	46.52/0.01	0.55/0.01	1.37/0.03	-0.09/0.01	14.53/0.41	45.68/0.07	46.16/0.10
J1226.8+0638	1.985	HB	42.35/0.03	46.82/0.01	45.95/0.07	45.46/0.16	0.19/0.01	1.32/0.03	-0.11/0.01	15.22/0.19	46.45/0.04	46.79/0.05

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1226.9-1329	0.456	IB	42.01/0.01	43.95/0.04		45.07/0.05	0.65/0.01		-0.09/0.03	13.94/0.57	44.22/0.17	44.72/0.23
J1228.7+4857	1.716	LF	43.58/0.01	45.97/0.14		46.42/0.07	0.57/0.03		-0.09/0.02	13.49/0.40	46.06/0.14	46.59/0.15
J1229.1+0202	0.158	IF	43.50/0.01	46.17/0.01	45.41/0.01	45.20/0.01	0.52/0.00	1.28/0.01	-0.06/0.00	15.12/0.14	45.92/0.02	46.52/0.02
J1230.3+2519	0.135	IB	41.13/0.01	44.91/0.04	43.45/0.07	44.01/0.04	0.32/0.01	1.54/0.04	-0.13/0.01	14.42/0.13	44.78/0.10	45.10/0.14
J1231.5+6414	0.163	IB	40.68/0.02	44.14/0.01	43.98/0.04	43.39/0.10	0.38/0.00	1.06/0.02	-0.12/0.01	14.76/0.25	44.20/0.05	44.53/0.07
J1231.7+2847	0.236	IB	41.40/0.02	44.54/0.01	43.79/0.07	44.81/0.02	0.43/0.01	1.28/0.03	-0.10/0.01	14.93/0.20	44.48/0.06	44.90/0.09
J1231.8+1421	0.256	IB		44.64/0.00	43.96/0.07	44.10/0.09		1.25/0.03	-0.10/0.01	15.07/0.21	44.53/0.04	44.94/0.07
J1233.7-0145	2.145	IB	42.63/0.02	46.47/0.01		46.97/0.04	0.31/0.01		-0.21/0.02	13.54/0.15	46.68/0.11	46.85/0.17
J1236.6+3901	0.390	IB	41.27/0.02	44.58/0.01	43.62/0.07	44.48/0.11	0.40/0.00	1.36/0.03	-0.13/0.01	14.24/0.10	44.61/0.03	44.94/0.04
J1237.9+6258	0.297	HB	40.55/0.02	44.53/0.00	44.33/0.03	43.83/0.11	0.28/0.00	1.07/0.01	-0.10/0.00	15.55/0.13	44.52/0.02	44.90/0.03
J1238.2-1958		IU	41.95/0.01			45.12/0.07			-0.12/0.01	14.67/0.10	45.40/0.04	45.75/0.05
J1238.3-4543		IU				45.04/0.07			-0.13/0.04	14.66/0.77	45.43/0.10	45.74/0.19
J1239.4+0727	0.400	LU	42.48/0.01	44.73/0.04	43.85/0.07	44.83/0.07	0.59/0.01	1.32/0.04	-0.12/0.01	13.74/0.10	45.19/0.09	45.58/0.12
J1239.5+0443	1.759	LF		45.50/0.04	45.21/0.07	47.43/0.02		1.11/0.04	-0.12/0.02	13.03/0.15	45.85/0.12	46.29/0.17
J1241.6-1456		HB	41.28/0.02		45.68/0.03	44.82/0.10			-0.10/0.01	15.89/0.18	45.83/0.06	46.20/0.08
J1241.9+0639	0.150	HB	40.05/0.02	43.62/0.01	43.16/0.07	43.25/0.13	0.36/0.01	1.17/0.03	-0.09/0.00	15.28/0.11	43.57/0.02	43.98/0.03
J1243.1+3627	1.065	HB	42.77/0.01	46.49/0.14	46.22/0.07	46.09/0.03	0.33/0.03	1.10/0.07	-0.08/0.01	16.23/0.42	46.57/0.09	47.00/0.12
J1243.9-0217		LU	41.86/0.01	43.23/0.04		44.84/0.10	0.75/0.01		-0.18/0.03	12.60/0.10	43.99/0.17	44.28/0.27
J1244.1+1615	0.456	LB		44.39/0.01		44.77/0.10			-0.30/0.03	12.95/0.10	45.38/0.19	45.42/0.66
J1244.3-4955		LU				44.93/0.10			-0.17/0.02	13.66/0.18	45.52/0.04	45.76/0.09
J1244.8+5707	1.545	IB	42.83/0.01	46.42/0.00	45.20/0.07	45.96/0.08	0.35/0.00	1.45/0.03	-0.13/0.00	14.47/0.07	46.43/0.02	46.73/0.03
J1246.7-2547	0.633	LF	43.21/0.01	45.66/0.04	45.06/0.09	46.49/0.01	0.56/0.01	1.22/0.05	-0.18/0.01	13.04/0.06	46.13/0.05	46.39/0.07
J1247.0+4421	1.812	HB	42.06/0.04	46.18/0.01	46.17/0.07	46.00/0.10	0.26/0.01	1.00/0.03	-0.08/0.01	16.17/0.34	46.07/0.07	46.50/0.09
J1248.0+5130	0.351	IB	41.67/0.02	44.74/0.01	43.53/0.07	44.29/0.10	0.45/0.00	1.45/0.03	-0.13/0.01	14.18/0.17	44.73/0.05	45.08/0.07
J1248.2+5820	0.847	IB	42.79/0.01	46.61/0.04	45.78/0.03	46.29/0.02	0.31/0.01	1.31/0.03	-0.12/0.01	14.91/0.12	46.56/0.03	46.89/0.05
J1249.7+3705		IB	40.83/0.04		44.14/0.07	44.75/0.07			-0.12/0.01	14.95/0.14	44.82/0.07	45.16/0.10
J1250.5+0217	0.955	IB	43.04/0.01			45.68/0.09			-0.11/0.04	13.74/0.61	45.33/0.18	45.78/0.26
J1251.0-0203	0.335	LU	41.67/0.01	43.88/0.08		44.59/0.08	0.60/0.02		-0.09/0.06	13.46/1.16	43.58/0.43	44.12/0.56
J1251.3+1041	0.245	IB		44.44/0.02		44.20/0.09			-0.13/0.00	15.09/0.07	44.42/0.02	44.71/0.03
J1253.2+5300	0.445	IB	42.51/0.02	45.14/0.02	43.99/0.14	45.60/0.02	0.52/0.01	1.43/0.06	-0.09/0.01	14.22/0.19	44.88/0.08	45.37/0.12
J1253.7+0327	0.066	LB	40.13/0.01	44.33/0.00	42.60/0.07	42.99/0.06	0.24/0.00	1.64/0.02	-0.20/0.02	13.93/0.15	44.07/0.08	44.24/0.12
J1254.1+6240	0.867	IB	41.50/0.02	45.29/0.01	44.52/0.07	45.10/0.09	0.31/0.01	1.29/0.03	-0.11/0.01	14.81/0.30	45.10/0.08	45.46/0.11
J1254.5+2210		HB		45.20/0.13		45.08/0.06			-0.06/0.03	16.55/2.50	45.22/0.36	45.80/0.20
J1254.9-4423	0.041	LB				42.34/0.11			-0.38/0.06	12.89/0.13	44.74/0.32	44.68/1.42
J1256.1-0547	0.536	LF	43.94/0.01	45.86/0.04	46.05/0.03	46.68/0.01	0.65/0.01	0.93/0.03	-0.15/0.01	12.69/0.05	46.39/0.04	46.76/0.05

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1256.3-1146	0.058	IU	39.73/0.01		42.46/0.12	42.86/0.06			-0.17/0.01	14.37/0.08	44.17/0.04	44.37/0.06
J1256.9+3649	0.531	IB	41.84/0.01	45.19/0.01		45.10/0.05	0.40/0.00		-0.11/0.00	14.70/0.02	45.08/0.01	45.47/0.01
J1258.0+6120	0.224	LB	40.21/0.03	43.90/0.01		43.70/0.10	0.33/0.01		-0.22/0.02	13.46/0.11	44.32/0.09	44.46/0.14
J1258.1+3233	0.806	LF	43.13/0.04	45.56/0.04	44.41/0.07	45.72/0.06	0.56/0.02	1.42/0.04	-0.14/0.01	13.13/0.07	45.64/0.05	46.01/0.07
J1258.6-1800	1.956	LF				47.18/0.04			-0.18/0.02	12.63/0.05	46.36/0.11	46.66/0.22
J1258.7-2219	1.303	LF		45.57/0.03		46.62/0.04			-0.14/0.01	12.81/0.07	46.06/0.06	46.47/0.09
J1259.0-2310	0.481	IU	42.57/0.01			44.93/0.07			-0.09/0.03	13.91/0.54	44.59/0.16	45.11/0.22
J1300.2+1416	1.109	IF	43.38/0.01	45.59/0.01	44.85/0.07	46.18/0.08	0.60/0.00	1.27/0.03	-0.09/0.01	13.79/0.14	45.61/0.03	46.13/0.03
J1302.6+5748	1.088	LU	43.12/0.01	44.70/0.04	44.90/0.15	45.59/0.09	0.71/0.01	0.93/0.07	-0.15/0.01	13.00/0.08	45.65/0.06	45.99/0.08
J1303.0+2435	0.993	LB	42.63/0.01	45.17/0.01		46.30/0.03	0.54/0.00		-0.15/0.03	13.52/0.28	45.37/0.14	45.69/0.22
J1304.3-4353		HB		45.67/0.02		45.75/0.02			-0.12/0.01	15.14/0.18	45.96/0.04	46.29/0.08
J1304.8-0338	1.250	IF	43.65/0.01			45.82/0.11			-0.07/0.01	13.75/0.23	45.61/0.05	46.26/0.05
J1305.5+7854		LB	42.50/0.01			45.09/0.07			-0.11/0.01	13.67/0.13	44.71/0.05	45.14/0.07
J1306.8-2146	0.126	LU		46.08/0.02		43.39/0.12			-0.06/0.02	13.78/0.61	42.68/0.10	43.41/0.07
J1307.6-4300		HU		45.15/0.04		45.40/0.03			-0.13/0.00	15.13/0.08	45.98/0.02	46.27/0.04
J1308.7+3545	1.055	LF	42.93/0.04	45.94/0.04	44.87/0.15	45.95/0.06	0.60/0.02	1.10/0.07	-0.18/0.01	12.70/0.04	45.73/0.06	46.02/0.08
J1309.3+4304	0.691	IB	42.00/0.01	44.69/0.04	44.36/0.07	45.71/0.03	0.29/0.01	1.58/0.04	-0.13/0.01	14.53/0.19	45.59/0.07	45.90/0.10
J1309.5+1154	0.415	LB	42.69/0.01	44.69/0.04	43.88/0.07	44.81/0.06	0.64/0.01	1.30/0.04	-0.09/0.01	13.72/0.14	44.74/0.05	45.26/0.07
J1310.2-1159	0.140	IB	40.70/0.01		43.37/0.10	43.32/0.11			-0.13/0.01	14.35/0.20	44.30/0.09	44.64/0.12
J1310.6+3222	0.998	LF	43.77/0.01	45.70/0.04	45.57/0.04	46.57/0.02	0.65/0.01	1.05/0.03	-0.16/0.01	13.22/0.08	46.72/0.05	47.03/0.06
J1310.7+5515	0.925	LF		44.63/0.04	44.57/0.17	45.53/0.10		1.02/0.08	-0.09/0.01	13.52/0.17	45.30/0.05	45.81/0.06
J1311.0+0036	0.002	IB	36.43/0.02	40.17/0.00	39.38/0.07	39.23/0.21	0.32/0.00	1.29/0.03	-0.10/0.01	15.27/0.19	40.12/0.04	40.52/0.05
J1312.5-2155	1.491	IB	43.43/0.01	46.86/0.02		46.66/0.03	0.38/0.01		-0.09/0.03	14.51/1.03	46.28/0.09	46.77/0.11
J1312.8-0424	0.825	LF	42.73/0.01	44.96/0.04	44.51/0.07	45.98/0.05	0.60/0.01	1.17/0.04	-0.14/0.01	13.19/0.08	45.35/0.07	45.71/0.09
J1314.7-4237	0.108	HU			43.93/0.03	43.23/0.12			-0.10/0.00	15.87/0.11	44.40/0.04	44.74/0.07
J1314.8+2349	2.145	HB	43.48/0.04	46.89/0.04	46.10/0.07	46.93/0.03	0.38/0.02	1.29/0.04	-0.11/0.01	15.15/0.29	47.05/0.06	47.41/0.08
J1315.4+1130	2.255	HU	42.52/0.02	46.27/0.01		46.16/0.13	0.32/0.01		-0.07/0.01	16.85/0.32	46.55/0.06	47.03/0.08
J1316.0-3338	1.210	LF	43.81/0.01	46.22/0.04	45.38/0.07	46.70/0.03	0.56/0.01	1.31/0.04	-0.15/0.01	13.25/0.19	46.68/0.10	47.01/0.13
J1317.8+3429	1.055	IF	43.31/0.01	45.31/0.04	44.78/0.07	45.74/0.10	0.64/0.01	1.20/0.04	-0.06/0.01	14.71/0.35	45.63/0.05	46.26/0.06
J1318.7-1232		LU	41.61/0.02	44.59/0.04		45.14/0.07	0.46/0.01		-0.17/0.03	13.57/0.22	44.85/0.17	45.11/0.25
J1319.3+1402	0.573	HB	41.94/0.02	45.29/0.00	45.29/0.07	44.50/0.15	0.39/0.00	1.00/0.03	-0.08/0.01	15.98/0.28	45.27/0.05	45.73/0.07
J1319.6+7759		LU	41.38/0.02			44.60/0.08			-0.25/0.02	13.13/0.12	45.75/0.14	45.86/0.19
J1321.0+2215	0.943	LF	42.99/0.01	45.06/0.04		46.22/0.04	0.63/0.01		-0.16/0.02	13.13/0.10	45.72/0.10	46.03/0.14
J1322.3+0839		LU	41.82/0.02	44.35/0.01		45.03/0.08	0.54/0.01		-0.25/0.03	12.92/0.10	45.23/0.18	45.37/0.28
J1322.6-1619		IU	42.01/0.02			44.97/0.10			-0.10/0.03	14.56/0.70	44.82/0.08	45.25/0.12

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1322.8-0938	1.864	LF	43.67/0.01	45.84/0.04		46.94/0.06	0.61/0.01		-0.13/0.02	12.85/0.29	46.29/0.17	46.70/0.19
J1322.9+0435	0.224	IB	40.77/0.01	44.34/0.00	43.96/0.07	43.64/0.12	0.35/0.00	1.14/0.03	-0.11/0.01	14.76/0.34	44.29/0.05	44.67/0.07
J1323.0+2942		IU	43.11/0.01			45.36/0.04			-0.04/0.01	14.74/0.30	44.39/0.08	45.18/0.11
J1323.9+1405	0.773	HB	41.81/0.02	45.21/0.01		45.26/0.09	0.39/0.01		-0.07/0.01	15.69/0.22	45.27/0.04	45.78/0.05
J1326.1+2931	0.431	HB		44.69/0.14	44.62/0.07	44.41/0.14		1.02/0.07	-0.06/0.01	15.62/0.41	44.76/0.04	45.36/0.04
J1326.8+2211	1.400	LF	41.53/0.04	45.72/0.04	45.05/0.07	46.74/0.03	0.24/0.02	1.25/0.04	-0.15/0.01	12.97/0.06	46.35/0.06	46.70/0.04
J1327.9+2524	2.225	IB	42.20/0.05	46.08/0.14		45.59/0.20	0.30/0.03		-0.18/0.02	13.90/0.19	46.35/0.09	46.55/0.14
J1328.5-4728		IU			43.55/0.09	44.92/0.09			-0.15	13.96	45.42	45.71/0.00
J1330.0+4437	2.145	HB		46.36/0.01	45.93/0.07	46.27/0.08		1.16/0.03	-0.10/0.00	15.29/0.06	46.39/0.02	46.76/0.03
J1330.0-3818	0.028	LF	39.09/0.01			42.19/0.11			-0.33/0.04	13.06/0.15	43.96/0.24	43.96/0.38
J1330.6+7002		IB	41.37/0.02			44.78/0.07			-0.13	14.84	45.61	45.89/0.00
J1330.9+5201	0.688	IU	42.14/0.01	44.21/0.04		45.08/0.09	0.63/0.01		-0.32/0.07	12.51/0.08	45.42/0.41	45.48/0.73
J1331.1-1328		IU	41.68/0.02			45.12/0.09			-0.13	14.06	44.82	45.15/0.00
J1331.5+1711	0.405	IB	41.99/0.01	44.13/0.01	43.50/0.07	44.85/0.10	0.61/0.00	1.23/0.03	-0.09/0.01	14.36/0.29	44.35/0.09	44.84/0.12
J1331.8+4718	0.669	IF	42.56/0.01	45.01/0.04	44.18/0.07	45.33/0.08	0.56/0.01	1.31/0.04	-0.11/0.01	14.08/0.09	45.57/0.03	45.97/0.04
J1332.0-0508	2.150	LF	43.90/0.01	46.36/0.04	45.21/0.07	47.79/0.02	0.55/0.01	1.42/0.04	-0.16/0.02	12.74/0.12	46.67/0.12	47.02/0.14
J1332.6-1256	1.492	LF	42.99/0.01			46.94/0.03			-0.25/0.03	12.56/0.10	46.07/0.21	46.24/0.31
J1332.8+2723	2.126	LF	43.50/0.01	45.85/0.04		46.70/0.07	0.58/0.01		-0.24/0.02	12.56/0.03	46.84/0.09	47.01/0.13
J1333.7+5057	1.362	LF	42.68/0.04	45.46/0.01	44.06/0.28	46.44/0.05	0.50/0.01	1.52/0.11	-0.20/0.03	13.12/0.18	45.94/0.20	46.16/0.29
J1335.4-2949	0.250	HB	40.32/0.03		44.42/0.05	44.09/0.09			-0.04/0.01	19.19/1.00	44.38/0.20	44.99/0.24
J1337.6-1257	0.539	LF	43.42/0.01	45.77/0.04	45.02/0.07	45.64/0.04	0.58/0.01	1.28/0.04	-0.15/0.01	13.25/0.21	46.34/0.10	46.68/0.13
J1338.6-2403	0.657	HU	42.87/0.01	45.31/0.12		45.43/0.08	0.56/0.02		-0.06/0.01	15.41/0.55	45.49/0.08	46.06/0.10
J1338.9+6532	0.945	IF	42.82/0.01	44.97/0.04		45.57/0.13	0.61/0.01		-0.06/0.02	14.52/0.88	45.11/0.03	45.74/0.03
J1339.0+1153	1.589	IB	42.14/0.02	46.33/0.01		46.20/0.06	0.24/0.00		-0.23/0.01	13.58/0.09	46.55/0.08	46.68/0.12
J1339.8-0133	1.620	LF	43.19/0.01	46.00/0.01		46.28/0.10	0.49/0.01		-0.13/0.02	13.42/0.20	46.26/0.11	46.64/0.13
J1340.6+4412	0.546	HB	41.72/0.04	44.81/0.00	44.85/0.07	44.62/0.13	0.44/0.01	0.99/0.03	-0.07/0.01	15.77/0.32	44.83/0.05	45.33/0.06
J1341.0+3955	0.172	IB		43.93/0.01	44.00/0.07	43.64/0.11		0.97/0.03	-0.08/0.02	15.19/0.60	44.05/0.08	44.51/0.12
J1341.5+5517	0.207	IB	40.70/0.02	44.31/0.00	43.34/0.07	43.85/0.10	0.35/0.00	1.36/0.03	-0.13/0.01	14.42/0.20	44.07/0.04	44.40/0.06
J1341.9-2053	1.582	LF	43.53/0.01	46.09/0.04	45.33/0.07	46.72/0.06	0.54/0.01	1.28/0.04	-0.14/0.02	13.28/0.12	46.36/0.11	46.73/0.14
J1342.7+0945		IU	41.40/0.01	44.64/0.01		44.61/0.11	0.42/0.00		-0.24/0.02	13.18/0.08	45.21/0.10	45.34/0.16
J1343.6+5753	0.932	IF	42.55/0.01	45.26/0.01	44.27/0.07	45.34/0.11	0.51/0.00	1.36/0.03	-0.08/0.01	14.69/0.19	45.24/0.03	45.73/0.04
J1344.2-1724	2.490	LF	43.82/0.01	46.11/0.04	45.20/0.18	47.44/0.02	0.58/0.01	1.34/0.08	-0.17/0.01	13.17/0.09	46.41/0.07	46.69/0.11
J1345.6+4453	2.534	IF	43.77/0.01	45.81/0.01	45.65/0.04	47.91/0.01	0.63/0.00	1.06/0.02	-0.11/0.01	13.63/0.18	45.89/0.06	46.34/0.08
J1345.8+0704	1.093	IF	42.76/0.01	45.17/0.01		46.23/0.05	0.57/0.00		-0.08/0.02	14.47/0.68	45.16/0.06	45.69/0.08
J1345.9-3357		HU	41.57/0.01			45.08/0.09			-0.08/0.04	15.44/1.82	44.72/0.21	45.18/0.20

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1347.6-3754	1.300	LF				46.51/0.05			-0.13/0.02	13.42/0.19	45.36/0.10	45.73/0.17
J1349.6-1133	0.340	IF	42.29/0.02	44.99/0.04	43.78/0.07	45.08/0.04	0.51/0.01	1.45/0.04	-0.12/0.01	14.16/0.13	45.20/0.07	45.58/0.10
J1350.8+3035	0.712	LF	42.75/0.01	44.98/0.04	44.67/0.07	45.78/0.04	0.60/0.01	1.11/0.04	-0.14/0.02	13.62/0.18	45.45/0.09	45.80/0.14
J1351.1+0030	2.084	LF	43.65/0.01	44.78/0.05		46.64/0.08	0.80/0.01		-0.07/0.02	13.46/0.34	44.90/0.08	45.57/0.11
J1351.4+1115	1.995	HB	42.75/0.01	46.46/0.13	46.00/0.07	46.20/0.06	0.33/0.03	1.17/0.07	-0.10/0.01	15.15/0.37	46.28/0.05	46.69/0.07
J1353.1-4414	0.050	IB	40.54/0.04	43.15/0.04	42.51/0.07	42.93/0.07	0.53/0.02	1.23/0.04	-0.08/0.01	14.87/0.48	43.15/0.10	43.67/0.13
J1353.2+1435	0.405	IB	42.33/0.04	43.88/0.04		44.90/0.06	0.72/0.02		-0.09/0.01	14.78/0.32	45.10/0.02	45.57/0.03
J1354.5+3705	0.384	LB	41.08/0.02	45.01/0.00		44.61/0.08	0.29/0.00		-0.20/0.01	13.71/0.11	45.14/0.06	45.32/0.09
J1355.0-1044	0.332	LF	42.44/0.02		44.52/0.06	44.85/0.05			-0.13/0.01	13.67/0.13	45.23/0.07	45.59/0.10
J1357.5+0125	0.219	IB	40.96/0.01	44.25/0.01	43.72/0.07	44.01/0.09	0.41/0.01	1.20/0.03	-0.09/0.01	15.13/0.21	44.17/0.04	44.59/0.06
J1357.6+7043	1.585	LF	43.74/0.01	45.27/0.04		46.49/0.06	0.72/0.01		-0.18/0.01	12.69/0.10	45.93/0.06	46.23/0.10
J1359.0+5544	1.014	LF	42.66/0.01	44.94/0.01		46.09/0.05	0.59/0.00		-0.12/0.02	13.63/0.27	45.06/0.11	45.45/0.17
J1359.2+0204	1.326	IF	43.69/0.02	46.29/0.00	45.32/0.11	46.02/0.10	0.53/0.00	1.36/0.04	-0.11/0.02	14.07/0.26	46.26/0.05	46.68/0.07
J1359.9-3746	0.334	LB	41.57/0.01	44.89/0.02		44.68/0.06	0.40/0.01		-0.16/0.02	13.83/0.19	44.94/0.09	45.20/0.13
J1404.8+0401	0.344	IB	41.21/0.02	45.30/0.01	44.26/0.03	44.56/0.06	0.26/0.00	1.39/0.01	-0.12/0.01	15.14/0.13	45.23/0.05	45.53/0.07
J1404.8+6554	0.363	HB	40.82/0.03	44.51/0.00	44.26/0.07	44.32/0.08	0.33/0.01	1.09/0.03	-0.09/0.01	15.33/0.25	44.45/0.04	44.86/0.05
J1406.6+1044	1.985	HB	42.03/0.03	46.40/0.01	46.46/0.07	45.59/0.15	0.21/0.01	0.98/0.03	-0.07/0.01	17.29/0.63	46.48/0.14	46.95/0.18
J1407.7-0256		IU				45.06/0.07			-0.13/0.01	14.07/0.20	45.38/0.07	45.70/0.13
J1408.8-0751	1.494	LF	43.72/0.02		45.05/0.07	46.88/0.03			-0.16/0.01	12.86/0.07	46.11/0.05	46.43/0.07
J1410.4+2821	0.522	IB	41.42/0.02	45.27/0.01	44.38/0.07	44.73/0.08	0.31/0.00	1.33/0.03	-0.12/0.01	14.73/0.16	45.15/0.05	45.48/0.06
J1412.0+5249	0.076	LU	41.17/0.02	44.50/0.00		42.77/0.12	0.40/0.00		-0.13/0.02	13.87/0.35	44.14/0.12	44.50/0.16
J1415.0-1001	2.001	IF	43.54/0.01	46.03/0.04		46.52/0.12	0.55/0.01		-0.10/0.04	13.94/0.70	45.81/0.20	46.26/0.29
J1415.2+4832	0.496	IB		44.71/0.00	44.03/0.07	44.84/0.11		1.25/0.03	-0.11/0.01	14.64/0.14	44.72/0.03	45.09/0.04
J1416.0+1325	0.247	LU	42.32/0.01	44.08/0.04	42.62/0.16	44.33/0.07	0.68/0.01	1.54/0.07	-0.21/0.01	12.57/0.06	44.73/0.06	44.97/0.10
J1416.1-2417	0.136	IB	40.61/0.01			43.46/0.08			-0.14/0.01	14.64/0.11	44.54/0.05	44.83/0.07
J1417.8+2540	0.237	HB		44.71/0.02	44.77/0.07	44.03/0.09		0.98/0.03	-0.06/0.01	17.43/0.51	45.04/0.09	45.58/0.11
J1418.4-0233	2.055	HB	42.68/0.01	47.11/0.00		46.67/0.03	0.20/0.00		-0.13/0.00	15.17/0.12	47.33/0.02	47.61/0.02
J1418.5+3543	2.085	IU	42.94/0.01	45.85/0.01		47.15/0.02	0.47/0.00		-0.10/0.02	14.73/0.52	45.80/0.04	46.24/0.05
J1418.9+7731		HU	40.88/0.03			44.82/0.06			-0.08/0.01	16.21/0.52	44.95/0.10	45.36/0.13
J1419.5+0449	1.794	LB		46.32/0.00		45.66/0.14			-0.24/0.03	13.34/0.19	46.66/0.19	46.78/0.57
J1419.5-0836		LU	41.79/0.01			45.41/0.04			-0.25	13.00	45.38	45.51/0.00
J1419.8+3819	1.830	LF	43.83/0.01	45.82/0.04	45.29/0.12	46.63/0.06	0.64/0.01	1.20/0.06	-0.16/0.01	13.05/0.05	46.40/0.04	46.71/0.07
J1419.9+5425	0.153	IB	41.75/0.02	44.86/0.00	43.45/0.06	44.10/0.04	0.44/0.00	1.52/0.02	-0.12/0.00	14.27/0.07	44.87/0.03	45.25/0.04
J1421.0-1122		IU	41.65/0.01			44.90/0.09			-0.10/0.01	14.59/0.21	44.60/0.03	45.01/0.05
J1422.4+3227	0.682	IF	42.81/0.02	44.81/0.04	44.52/0.07	45.12/0.13	0.64/0.01	1.11/0.04	-0.07/0.01	14.39/0.33	44.91/0.02	45.48/0.03

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1422.8+5801	0.635	HB	41.26/0.02	45.22/0.01	45.85/0.07	44.86/0.09	0.29/0.01	0.77/0.03	-0.06/0.01	18.71/1.39	45.92/0.42	46.41/0.55
J1422.8-7828	0.788	LF				45.20/0.11			-0.15/0.03	13.20/0.29	45.08/0.20	45.42/0.36
J1424.3+0434	0.665	LB	42.53/0.01	45.07/0.13		45.24/0.09	0.54/0.03		-0.14/0.02	13.73/0.22	45.30/0.10	45.64/0.15
J1424.9+3615	2.055	IB	43.10/0.01	46.68/0.01	45.33/0.07	46.71/0.05	0.35/0.00	1.50/0.03	-0.13/0.01	14.33/0.23	46.42/0.11	46.75/0.16
J1426.2+3402	1.553	IB	42.46/0.01	46.48/0.01	45.84/0.02	45.84/0.09	0.27/0.00	1.24/0.01	-0.13/0.01	14.68/0.11	46.30/0.08	46.60/0.12
J1427.0+2347	0.160	IB	41.53/0.01	45.42/0.04	43.57/0.07	45.03/0.01	0.30/0.01	1.69/0.04	-0.11/0.01	14.93/0.16	45.07/0.07	45.44/0.10
J1427.6-3305		LB	42.25/0.01	45.31/0.04		45.73/0.04	0.45/0.01		-0.15/0.02	13.57/0.16	45.67/0.19	45.97/0.25
J1427.9-4206	1.522	IF	44.35/0.08	46.90/0.03	45.53/0.05	47.69/0.01	0.54/0.02	1.50/0.03	-0.10/0.01	14.19/0.20	47.01/0.06	47.44/0.09
J1428.5+4240	0.129	HB	40.21/0.04	44.41/0.02	44.92/0.00	43.40/0.06	0.24/0.01	0.81/0.01	-0.07/0.00	17.52/0.15	44.78/0.04	45.23/0.05
J1434.1+4203	1.240	LF	43.22/0.01	44.95/0.04		45.98/0.07	0.69/0.01		-0.10/0.02	13.57/0.29	45.25/0.11	45.74/0.16
J1434.6+1951	1.382	LF	43.43/0.01	45.60/0.04		46.00/0.11	0.61/0.01		-0.11/0.01	13.45/0.18	45.63/0.09	46.07/0.12
J1435.2+2023	0.748	IB	42.86/0.02	45.18/0.01		45.55/0.09	0.58/0.00		-0.10/0.03	14.00/0.76	45.32/0.14	45.79/0.19
J1436.8+2322	1.547	LF	43.82/0.02	45.65/0.04		46.34/0.08	0.67/0.01		-0.11/0.01	13.50/0.12	45.95/0.06	46.39/0.09
J1436.8+5639	0.150	HB	40.17/0.02	43.64/0.01	43.41/0.07	43.63/0.06	0.37/0.01	1.09/0.03	-0.09/0.00	15.54/0.13	43.72/0.02	44.15/0.03
J1438.7+3710	2.401	LF	43.81/0.01	46.17/0.04		47.36/0.03	0.57/0.01		-0.14/0.04	13.00/0.27	45.78/0.23	46.16/0.37
J1439.2+3931	0.344	HB	41.22/0.01	45.09/0.01	45.03/0.07	44.29/0.07	0.30/0.00	1.02/0.03	-0.06/0.01	17.17/0.57	45.39/0.13	45.91/0.15
J1440.0-3955		IU	41.27/0.02			44.63/0.13			-0.12/0.00	14.94/0.06	45.38/0.02	45.70/0.03
J1440.1+4955	0.174	LB	41.02/0.01	43.75/0.13	42.49/0.07	43.95/0.07	0.51/0.03	1.46/0.07	-0.12/0.01	13.29/0.16	43.91/0.09	44.29/0.12
J1440.2-1538		LB	42.85/0.02	44.43/0.03		45.25/0.08	0.71/0.01		-0.10/0.01	13.87/0.23	44.69/0.10	45.21/0.13
J1440.4-3845		HB	41.41/0.02		45.92/0.04	44.79/0.10			-0.07/0.01	17.26/0.40	45.95/0.06	46.40/0.07
J1440.9+0610	0.435	IB	41.75/0.02	45.21/0.01	44.04/0.07	45.12/0.05	0.38/0.00	1.43/0.03	-0.12/0.01	14.63/0.22	45.04/0.05	45.39/0.07
J1442.0+4348	0.673	LB		45.30/0.00		44.80/0.09			-0.20/0.01	13.45/0.10	45.60/0.08	45.78/0.20
J1442.8+1200	0.163	HB	40.69/0.04	44.47/0.01	44.17/0.07	43.68/0.07	0.32/0.01	1.11/0.03	-0.08/0.01	16.35/0.27	44.38/0.06	44.82/0.09
J1443.9+2502	0.062	LF	40.61/0.01	42.45/0.01		43.17/0.04	0.67/0.00		-0.11/0.02	13.13/0.20	42.49/0.14	42.97/0.19
J1444.0-3907	0.065	HB	40.14/0.01		43.47/0.04	43.61/0.02			-0.06/0.02	16.42/0.97	43.34/0.18	43.89/0.23
J1445.0-0328		HB	41.38/0.02	45.19/0.04	45.29/0.05	45.08/0.07	0.31/0.01	0.97/0.03	-0.08/0.01	16.29/0.24	45.26/0.05	45.70/0.06
J1446.1-1628		LB	42.64/0.01	44.31/0.04		45.16/0.09	0.70/0.01		-0.17/0.02	12.70/0.13	44.89/0.13	45.20/0.20
J1448.0+3608	1.565	HB	42.39/0.02	46.72/0.00	46.34/0.07	46.35/0.03	0.22/0.01	1.14/0.03	-0.10/0.01	15.70/0.32	46.64/0.08	47.01/0.10
J1450.4+0911	2.611	IF	43.59/0.04	45.85/0.04		46.90/0.08	0.59/0.02		-0.11/0.03	13.84/0.51	46.10/0.13	46.55/0.17
J1450.9+5200	2.471	LB		46.51/0.00		46.81/0.06			-0.32/0.02	13.16/0.07	47.24/0.12	47.24/0.45
J1451.2+6355	0.650	HB	41.16/0.03		45.11/0.03	44.66/0.11			-0.05/0.01	17.34/0.56	45.00/0.09	45.55/0.10
J1454.0+1622	1.276	LF	43.11/0.01	45.79/0.04		46.08/0.10	0.52/0.01		-0.15/0.01	13.52/0.13	45.95/0.07	46.27/0.11
J1454.2-3751	0.314	LF	42.48/0.01	45.25/0.04	44.81/0.05	44.69/0.09	0.50/0.01	1.16/0.03	-0.13/0.01	13.46/0.12	45.17/0.05	45.53/0.07
J1454.5+5124	1.083	IB	42.86/0.02	45.91/0.01	44.85/0.07	46.44/0.02	0.45/0.00	1.39/0.03	-0.09/0.01	14.90/0.33	45.88/0.05	46.35/0.06
J1457.4-3539	1.424	LF	43.67/0.01	45.76/0.04	45.33/0.04	47.24/0.02	0.62/0.01	1.16/0.03	-0.15/0.02	13.36/0.15	46.34/0.09	46.67/0.14

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1458.7+3719	0.333	LB	41.89/0.01	43.94/0.04		44.23/0.11	0.63/0.01		-0.19/0.02	12.91/0.08	44.60/0.11	44.85/0.17
J1500.6+4750	1.059	LB	43.23/0.01	45.09/0.04		45.84/0.10	0.66/0.01		-0.10/0.01	13.87/0.14	45.23/0.07	45.71/0.09
J1500.9+2338	0.235	IB	40.75/0.02	45.39/0.04	43.83/0.04	44.46/0.04	0.16/0.01	1.57/0.03	-0.13/0.01	14.81/0.16	45.06/0.08	45.35/0.11
J1503.7+4759	2.193	IB		45.92/0.01	45.20/0.07	46.69/0.07		1.27/0.03	-0.10/0.00	14.60/0.08	45.93/0.01	46.37/0.02
J1503.7-1540		HB	40.80/0.05	45.18/0.03	45.47/0.07	45.12/0.06	0.20/0.02	0.89/0.04	-0.07/0.01	17.36/0.80	45.53/0.19	45.98/0.23
J1504.4+1029	1.838	LF	44.30/0.01	45.97/0.04	46.03/0.03	48.01/0.01	0.70/0.01	0.98/0.03	-0.13/0.01	13.34/0.07	46.62/0.04	47.00/0.05
J1504.5-8242		HU				44.86/0.11			-0.03	20.12	45.26	45.94/0.00
J1506.1+3728	0.672	LF	43.16/0.01	44.39/0.04		45.62/0.05	0.78/0.01		-0.16/0.01	12.23/0.05	44.82/0.08	45.19/0.12
J1506.3+4332	0.470	LB	41.33/0.02	44.41/0.01		44.48/0.10	0.44/0.01		-0.24/0.01	13.07/0.07	45.05/0.09	45.18/0.14
J1506.6+0811	0.376	IB	41.59/0.01	45.07/0.01	44.27/0.07	44.56/0.07	0.37/0.00	1.30/0.03	-0.11/0.01	14.90/0.14	44.93/0.03	45.31/0.05
J1507.4+1725	1.485	HB	42.25/0.02	45.76/0.01		45.51/0.13	0.36/0.01		-0.07/0.00	16.32/0.14	45.71/0.03	46.22/0.03
J1508.6+2709	0.270	HB		44.45/0.00	44.47/0.07	43.79/0.12		0.99/0.03	-0.10/0.02	15.33/0.50	44.57/0.10	44.95/0.16
J1508.7-4956		IU				45.57/0.06			-0.17/0.01	14.13/0.05	46.45/0.19	46.68/0.46
J1509.7+5556	1.680	IB	42.47/0.01	46.54/0.14	45.41/0.07	46.02/0.06	0.26/0.03	1.42/0.07	-0.13/0.01	14.62/0.13	46.25/0.04	46.56/0.05
J1510.9-0542	1.185	IF	44.30/0.01		45.13/0.04	46.68/0.04			-0.05/0.00	14.58/0.10	45.95/0.03	46.64/0.04
J1512.2+0202	0.220	LF	42.16/0.02	44.34/0.00	43.56/0.07	44.73/0.03	0.61/0.00	1.29/0.03	-0.11/0.02	13.45/0.21	44.28/0.09	44.72/0.14
J1512.2-2255	0.315	HU	40.79/0.04		44.68/0.07	44.45/0.07			-0.09/0.03	15.86/1.05	44.60/0.32	45.03/0.42
J1512.3+8005		LU	42.03/0.01			44.75/0.11			-0.15/0.02	13.28/0.16	44.48/0.10	44.82/0.16
J1512.8-0906	0.360	IF	43.06/0.01	45.42/0.00	45.04/0.05	46.59/0.01	0.57/0.00	1.14/0.02	-0.10/0.01	13.97/0.12	45.47/0.03	45.94/0.04
J1513.1-1014	1.513	LF	43.84/0.02	46.46/0.04		46.63/0.11	0.53/0.01		-0.14/0.02	13.09/0.21	46.11/0.10	46.49/0.15
J1513.5-3233	1.153	LF	42.93/0.01	45.34/0.02		46.35/0.05	0.56/0.01		-0.12/0.02	13.40/0.25	45.29/0.12	45.69/0.16
J1514.1+2940	1.629	IF	43.06/0.01	45.74/0.01		46.29/0.15	0.52/0.00		-0.10/0.01	14.36/0.29	45.77/0.04	46.19/0.06
J1514.8+4446	0.570	LF	41.65/0.02	44.90/0.01	43.80/0.07	45.41/0.04	0.41/0.00	1.41/0.03	-0.30/0.01	12.88/0.02	45.86/0.04	45.91/0.06
J1514.8-3623		LU	42.41/0.01	44.43/0.03		45.05/0.09	0.64/0.01		-0.18/0.01	12.90/0.09	44.89/0.09	45.16/0.15
J1516.7+3648	0.435	IB	42.05/0.01	44.10/0.01		44.59/0.09	0.63/0.00		-0.07/0.02	14.71/0.58	44.06/0.06	44.64/0.08
J1516.9+1926	1.070	LB	43.27/0.01	45.96/0.04		45.91/0.11	0.51/0.01		-0.16/0.01	13.27/0.10	46.07/0.08	46.37/0.11
J1517.6+6524	0.702	HB		46.16/0.04	45.85/0.07	45.29/0.04		1.11/0.04	-0.07/0.01	17.38/0.32	46.23/0.07	46.70/0.10
J1517.6-2422	0.048	IB	41.14/0.01	44.40/0.03	42.64/0.09	43.67/0.02	0.41/0.01	1.65/0.05	-0.10/0.00	14.50/0.09	44.12/0.04	44.55/0.05
J1518.0-2732		LU	42.72/0.01			45.56/0.04			-0.26/0.05	13.22/0.20	46.00/0.22	46.10/0.44
J1520.3+4209	0.484	IF	42.04/0.02			45.06/0.07			-0.14/0.03	14.15/0.49	44.91/0.14	45.23/0.24
J1520.8-0348		HB	41.70/0.01	45.65/0.03		45.28/0.05	0.28/0.01		-0.08/0.02	15.53/0.72	45.02/0.13	45.49/0.17
J1521.1+5543	0.640	IB		45.06/0.14	44.24/0.07	44.97/0.08		1.30/0.08	-0.11/0.00	14.56/0.09	45.01/0.02	45.41/0.02
J1521.8+4340	2.175	IF	43.54/0.01	46.18/0.04	45.27/0.07	46.67/0.10	0.52/0.01	1.33/0.04	-0.13/0.01	13.81/0.14	46.34/0.04	46.71/0.06
J1522.1+3144	1.487	LF	43.42/0.01	45.36/0.04	44.67/0.07	47.78/0.01	0.65/0.01	1.25/0.04	-0.11/0.01	13.46/0.10	45.59/0.04	46.05/0.05
J1522.6-2730	1.294	IB	43.81/0.01	46.38/0.03	45.29/0.07	46.75/0.03	0.54/0.01	1.40/0.03	-0.09/0.01	14.30/0.16	46.36/0.07	46.86/0.09

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1531.0+5737	1.100	HB	42.21/0.01	45.30/0.01		45.80/0.07	0.44/0.00		-0.08/0.02	15.25/0.75	45.25/0.07	45.73/0.10
J1531.8+4704	0.316	IB	40.95/0.02	44.50/0.00	43.46/0.07	44.19/0.11	0.36/0.00	1.38/0.03	-0.13/0.02	14.14/0.25	44.21/0.07	44.56/0.09
J1532.0+3018	0.065	HB	39.83/0.02	43.54/0.01	42.96/0.07	42.62/0.09	0.33/0.00	1.22/0.03	-0.11/0.01	15.41/0.15	43.94/0.05	44.28/0.07
J1532.7-1319		LU	42.32/0.01	43.39/0.03		45.86/0.02	0.81/0.01		-0.16/0.03	12.42/0.19	44.13/0.21	44.49/0.33
J1533.2+1852	0.307	HB	40.84/0.02	44.42/0.00	44.70/0.07	44.17/0.10	0.35/0.00	0.90/0.03	-0.06/0.01	16.99/0.62	44.66/0.13	45.16/0.17
J1533.5+3416	0.811	HB	41.84/0.01	45.55/0.00	45.41/0.07	45.03/0.10	0.33/0.00	1.05/0.03	-0.08/0.00	15.90/0.11	45.56/0.02	46.00/0.03
J1534.4+5323	0.890	HB	41.70/0.02	45.37/0.01	46.09/0.07	45.04/0.12	0.34/0.01	0.73/0.03	-0.05/0.00	18.62/0.46	45.98/0.11	46.54/0.13
J1534.5+0128	1.425	LF	43.97/0.01	45.85/0.04	45.57/0.10	46.44/0.09	0.66/0.01	1.10/0.05	-0.11/0.01	13.44/0.08	45.92/0.03	46.38/0.05
J1535.0+3721	0.143	IB	40.14/0.02	44.15/0.00	42.23/0.07	43.58/0.07	0.28/0.00	1.71/0.03	-0.17/0.01	14.02/0.06	44.13/0.02	44.35/0.03
J1535.7+3920	0.257	IB	40.60/0.02	44.47/0.00	43.86/0.07	43.91/0.11	0.30/0.01	1.22/0.03	-0.12/0.01	14.69/0.20	44.37/0.04	44.70/0.05
J1539.5+2746	2.084	IF	43.44/0.01	46.76/0.04	45.35/0.07	46.74/0.04	0.40/0.01	1.52/0.04	-0.16/0.01	13.72/0.09	46.54/0.04	46.82/0.06
J1539.8-1128		HU	41.86/0.01		45.19/0.06	44.95/0.10			-0.08/0.06	15.32/2.28	44.64/0.10	45.14/0.20
J1540.1+8155		HB	41.89/0.02	45.14/0.01	45.20/0.07	44.75/0.06	0.41/0.01	0.98/0.03	-0.08/0.01	15.77/0.29	45.52/0.07	45.98/0.09
J1540.8+1449	0.605	IB	43.24/0.01	45.43/0.04	44.59/0.07	45.13/0.10	0.60/0.01	1.31/0.04	-0.08/0.01	13.97/0.16	45.32/0.05	45.88/0.06
J1541.8+1105	2.756	LF		45.72/0.01		47.14/0.10			-0.21/0.07	13.05/0.30	46.20/0.41	46.41/1.02
J1542.9+6129	0.117	IB	40.55/0.01	44.04/0.14	42.55/0.07	44.36/0.02	0.37/0.03	1.55/0.07	-0.14/0.01	14.28/0.10	44.24/0.07	44.53/0.09
J1543.5+0451	0.040	LU	40.11/0.01	44.41/0.00		42.32/0.10	0.22/0.00		-0.17/0.04	13.79/0.42	43.97/0.17	44.19/0.25
J1546.0+0818		HB	41.06/0.03			44.80/0.08			-0.08/0.01	16.02/0.37	45.00/0.06	45.43/0.08
J1546.6+1812	1.005	IB	42.23/0.02	45.46/0.01		45.62/0.10	0.42/0.00		-0.12/0.02	14.26/0.41	45.44/0.08	45.79/0.11
J1547.1-2801		HU				44.47/0.13			-0.07	16.22	44.96	45.46/0.00
J1548.8-2250	0.192	HB	41.22/0.01		44.73/0.04	44.28/0.05			-0.08/0.00	15.94/0.13	44.89/0.03	45.32/0.04
J1549.0+6309		LU		43.84/0.02		44.81/0.11			-0.34	12.54	45.65	45.67/0.00
J1549.4+0237	0.414	LF	42.68/0.02	45.80/0.04	44.36/0.07	45.45/0.03	0.43/0.01	1.53/0.04	-0.14/0.01	13.41/0.05	45.46/0.04	45.81/0.05
J1549.5+1709	2.625	IU	43.23/0.01	45.91/0.01		46.26/0.14	0.52/0.00		-0.13/0.02	13.77/0.25	45.98/0.08	46.33/0.12
J1550.3+7409		IU	41.67/0.02			44.80/0.12			-0.09/0.01	14.86/0.28	44.50/0.02	44.95/0.03
J1550.5+0526	1.422	LF	44.20/0.01	45.69/0.04	45.40/0.07	46.64/0.04	0.73/0.01	1.11/0.04	-0.13/0.01	13.04/0.08	46.26/0.04	46.68/0.06
J1552.1+0852	1.015	IB	42.65/0.01	45.82/0.01		45.73/0.08	0.43/0.00		-0.10/0.03	14.85/0.87	45.76/0.08	46.19/0.11
J1553.3-2421	0.332	IF	41.99/0.01			44.79/0.06			-0.07/0.03	14.50/1.15	44.05/0.21	44.64/0.28
J1553.5+1256	1.290	IF	43.74/0.01	46.47/0.04		46.79/0.03	0.51/0.01		-0.09/0.01	14.54/0.35	46.29/0.07	46.78/0.10
J1553.5-3118		IB	42.24/0.01		44.98/0.08	44.87/0.06			-0.11/0.02	14.93/0.45	45.78/0.29	46.14/0.41
J1554.4+2010	0.222	IB	41.09/0.01	44.55/0.00	44.39/0.03	43.98/0.09	0.37/0.00	1.06/0.01	-0.10/0.01	15.20/0.33	44.39/0.07	44.78/0.10
J1555.7+1111	0.360	HB	42.12/0.01	46.15/0.00	45.09/0.07	45.70/0.01	0.27/0.00	1.39/0.02	-0.09/0.01	15.98/0.19	46.14/0.06	46.55/0.08
J1557.4-7040		IU				45.14/0.07			-0.08/0.01	14.11/0.30	44.16/0.04	44.72/0.05
J1558.9+5625	0.300	IB	41.78/0.01	44.71/0.01	42.96/0.07	44.71/0.04	0.47/0.00	1.65/0.03	-0.09/0.02	14.10/0.41	44.40/0.13	44.90/0.16
J1558.9-6432	0.080	IB			42.99/0.10	43.57/0.04			-0.13/0.01	14.29/0.15	44.47/0.07	44.79/0.14

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1559.7+8512		IU	42.11/0.01			45.21/0.05			-0.08/0.01	14.86/0.40	44.56/0.18	45.08/0.25
J1559.9+2319	0.415	IB		45.06/0.01		44.73/0.08			-0.17/0.05	13.95/0.53	45.10/0.17	45.33/0.39
J1603.7+1106	0.143	LB	41.09/0.01	44.25/0.04		43.75/0.08	0.43/0.01		-0.19/0.02	13.21/0.10	44.09/0.13	44.32/0.20
J1604.6+5714	0.720	IF	42.95/0.01	45.44/0.04	44.34/0.07	45.97/0.03	0.55/0.01	1.40/0.04	-0.11/0.01	14.03/0.11	45.60/0.05	46.03/0.06
J1606.1+5630	0.450	HB	41.03/0.03	44.18/0.01	44.62/0.07	44.48/0.11	0.43/0.01	0.84/0.03	-0.06/0.01	16.73/0.68	44.43/0.12	44.98/0.15
J1607.0+1551	0.497	LF	42.72/0.01	44.47/0.01	43.71/0.07	45.63/0.03	0.68/0.00	1.28/0.03	-0.10/0.02	13.39/0.28	44.56/0.11	45.07/0.15
J1608.6+1029	1.226	LF	43.86/0.01	45.92/0.04	45.12/0.07	46.66/0.04	0.63/0.01	1.29/0.04	-0.11/0.01	13.39/0.12	46.15/0.05	46.59/0.07
J1610.6-3956	0.518	IF	42.73/0.01		43.90/0.07	45.41/0.08			-0.09/0.03	14.10/0.26	44.90/0.47	45.42/0.65
J1610.8-6649		HB				45.47/0.03			-0.10/0.02	15.29/0.34	45.68/0.16	46.07/0.25
J1612.4-3100		HU	42.26/0.02			45.16/0.06			-0.07/0.02	15.87/1.01	45.16/0.20	45.68/0.27
J1613.8+3410	1.399	LF	44.43/0.01	46.41/0.04	45.14/0.07	46.35/0.05	0.64/0.01	1.47/0.04	-0.12/0.00	13.44/0.05	46.56/0.03	46.98/0.04
J1615.8+4712	0.199	IF	41.84/0.01	44.38/0.00	42.87/0.07	43.75/0.09	0.54/0.00	1.56/0.03	-0.09/0.01	14.38/0.25	44.30/0.04	44.80/0.05
J1616.4+4631	0.952	IF	42.40/0.01	45.14/0.01		45.61/0.11	0.50/0.00		-0.11/0.02	14.02/0.30	45.18/0.05	45.61/0.07
J1616.8+4111	0.267	IB	41.34/0.02		43.90/0.07	44.04/0.10			-0.10/0.01	14.96/0.15	44.64/0.06	45.05/0.08
J1617.4-5846	1.422	IF				46.88/0.04			-0.10/0.01	14.22/0.05	47.07/0.07	47.51/0.10
J1617.7-7717	1.710	IF	44.61/0.08	46.59/0.04	45.48/0.07	46.91/0.04	0.64/0.02	1.41/0.04	-0.09/0.00	13.87/0.06	46.62/0.04	47.15/0.05
J1617.8+5137	2.558	IF	43.69/0.01	45.86/0.01		47.05/0.08	0.61/0.00		-0.08/0.01	14.33/0.28	45.77/0.03	46.31/0.04
J1625.0+5651	0.415	LB	42.17/0.01	44.80/0.04		44.51/0.10	0.52/0.01		-0.14/0.05	13.57/0.45	44.80/0.23	45.14/0.35
J1625.7-2527	0.786	LF	43.73/0.01	45.83/0.00		46.84/0.01	0.62/0.00		-0.17/0.01	12.50/0.13	45.57/0.08	45.91/0.14
J1625.9+4125	2.175	IF	43.07/0.01	46.07/0.01		46.82/0.09	0.46/0.00		-0.12/0.02	14.13/0.30	46.03/0.07	46.41/0.10
J1626.0-2951	0.815	LF	43.72/0.01		44.75/0.07	46.39/0.03			-0.14/0.01	12.50/0.15	45.38/0.08	45.79/0.12
J1626.1+3512	0.497	HB	41.31/0.02	44.85/0.01	44.31/0.07	44.17/0.15	0.36/0.00	1.20/0.03	-0.10/0.00	15.13/0.11	44.77/0.02	45.16/0.02
J1626.4-7640		LU				44.93/0.08			-0.25/0.03	13.21/0.15	45.90/0.17	46.01/0.53
J1628.2+7703		HU	42.27/0.01			44.79/0.11			-0.05/0.02	15.12/1.32	43.95/0.08	44.66/0.11
J1630.7+5222	1.545	HB	42.99/0.01	46.63/0.01		46.34/0.04	0.34/0.00		-0.10/0.08	15.64/2.82	46.48/0.46	46.87/0.20
J1630.8+1047		LU	42.14/0.01			45.13/0.10			-0.16/0.02	13.29/0.15	44.76/0.11	45.06/0.17
J1635.2+3809	1.813	LF	44.48/0.01	46.61/0.04	45.25/0.14	47.94/0.01	0.61/0.01	1.50/0.07	-0.14/0.01	13.21/0.06	46.88/0.04	47.24/0.05
J1637.1+1314	1.545	HB		45.88/0.01	45.35/0.07	46.08/0.10		1.20/0.03	-0.11/0.01	15.20/0.15	45.81/0.03	46.17/0.06
J1637.6-3449		IU	42.01/0.01			44.93/0.08			-0.15/0.07	15.00/0.59	45.90/0.81	46.13/1.43
J1637.7+4715	0.735	LF	43.25/0.04	45.07/0.04	44.61/0.10	46.04/0.03	0.67/0.02	1.17/0.05	-0.10/0.01	13.19/0.08	45.28/0.05	45.78/0.06
J1637.8+7325		HB	40.81/0.04		44.24/0.07	44.50/0.12			-0.11/0.01	15.17/0.13	44.75/0.04	45.11/0.05
J1637.9+5719	0.751	IF	43.37/0.01	45.78/0.04	45.22/0.05	45.50/0.08	0.56/0.01	1.21/0.03	-0.10/0.00	14.22/0.09	46.07/0.06	46.53/0.08
J1639.8+4125	0.690	IF	42.09/0.01	44.93/0.01		45.28/0.09	0.49/0.00		-0.10/0.01	14.83/0.10	46.60/0.06	46.99/0.06
J1640.6+3945	1.660	LF	43.93/0.01	45.92/0.04	44.90/0.09	47.28/0.02	0.64/0.01	1.38/0.05	-0.13/0.01	13.16/0.07	46.19/0.04	46.58/0.06
J1640.9+1142	0.078	IU	40.77/0.01			43.06/0.09			-0.13/0.04	14.05/0.77	43.86/0.20	44.20/0.29

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1641.8-0619	1.514	IB	43.98/0.01	46.04/0.02	45.09/0.07	46.74/0.05	0.63/0.01	1.35/0.03	-0.10/0.01	13.86/0.16	46.23/0.16	46.68/0.24
J1642.9+3950	0.593	LF	43.91/0.01	45.88/0.04	45.25/0.03	45.99/0.03	0.64/0.01	1.23/0.03	-0.11/0.00	13.46/0.07	46.15/0.02	46.61/0.03
J1643.6-0642		IU	41.43/0.02			45.12/0.09			-0.13/0.00	14.99/0.08	45.76/0.04	46.05/0.06
J1645.9+6336	2.379	LF	43.59/0.01	46.05/0.04		46.94/0.08	0.56/0.01		-0.14/0.01	13.27/0.08	46.24/0.05	46.59/0.07
J1647.1-6438		LU	42.89/0.04	44.84/0.03		45.09/0.07	0.65/0.01		-0.11/0.01	13.46/0.23	44.85/0.10	45.30/0.15
J1647.4+4950	0.048	IU	40.07/0.02	44.88/0.04	42.11/0.07	43.23/0.03	0.13/0.01	2.02/0.04	-0.13/0.01	14.22/0.20	43.41/0.07	43.74/0.10
J1649.4+5238	2.055	HB	42.83/0.02	46.84/0.00		46.71/0.05	0.28/0.00		-0.10/0.03	15.66/1.18	46.85/0.21	47.23/0.28
J1650.8+0830	1.965	LF	43.30/0.01	46.06/0.04		46.86/0.08	0.50/0.01		-0.16/0.02	13.47/0.18	46.20/0.10	46.49/0.15
J1651.6+7219		HB	41.37/0.02		44.69/0.07	44.44/0.12			-0.07/0.01	15.91/0.32	44.81/0.05	45.31/0.06
J1653.9+3945	0.034	HB	40.71/0.01	44.79/0.02	43.66/0.01	43.44/0.01	0.26/0.01	1.42/0.01	-0.07/0.00	16.45/0.12	44.40/0.03	44.87/0.04
J1656.8-2010		HU				45.19/0.06			-0.06	17.48	45.35	45.88/0.00
J1656.9+6008	0.623	IF	42.59/0.01	45.04/0.14	43.85/0.07	45.27/0.08	0.56/0.03	1.44/0.07	-0.11/0.01	14.04/0.13	45.07/0.06	45.50/0.09
J1657.7+4807	1.669	LF	43.99/0.01	45.55/0.04	45.73/0.07	46.97/0.03	0.72/0.01	0.93/0.04	-0.10/0.01	12.64/0.13	45.38/0.08	45.93/0.10
J1658.3+6149	0.374	LB	41.25/0.01	44.68/0.01		44.29/0.09	0.38/0.00		-0.33/0.01	12.84/0.04	45.68/0.09	45.70/0.14
J1659.4+2631	0.793	LF	43.11/0.01	45.46/0.01		45.35/0.15	0.58/0.00		-0.12/0.03	13.69/0.37	45.54/0.13	45.93/0.20
J1700.1+6829	0.301	LF	42.01/0.02	44.24/0.04	43.33/0.09	45.30/0.02	0.60/0.01	1.34/0.05	-0.14/0.01	13.08/0.12	44.30/0.09	44.68/0.12
J1702.6+3116	2.075	HB	41.89/0.02	46.18/0.01	45.66/0.07	45.34/0.12	0.22/0.01	1.19/0.03	-0.11/0.01	15.31/0.19	46.09/0.05	46.43/0.07
J1703.6-6211	1.755	LF		46.56/0.03		47.34/0.02			-0.18/0.01	13.24/0.14	46.86/0.08	47.12/0.18
J1704.0+7646		HU	41.78/0.01			44.96/0.09			-0.06/0.01	15.78/0.53	44.26/0.07	44.85/0.09
J1705.5+7134	0.350	HB	41.16/0.02	44.60/0.01	44.08/0.07	44.27/0.12	0.38/0.00	1.19/0.03	-0.09/0.01	15.25/0.20	44.54/0.05	44.96/0.07
J1709.6+4318	1.027	IF	42.72/0.01	45.03/0.04		46.69/0.02	0.58/0.01		-0.09/0.01	14.45/0.27	45.46/0.08	45.93/0.11
J1712.6+2932	0.420	IB	40.99/0.02	44.87/0.00	43.77/0.07	44.10/0.11	0.30/0.00	1.41/0.03	-0.13/0.01	14.57/0.10	44.73/0.02	45.05/0.03
J1714.1-2029		HU				44.15/0.15			-0.13	15.62	46.31	46.56/0.00
J1715.7+6837	0.777	LF	43.01/0.01	45.54/0.04	45.40/0.02	45.70/0.04	0.54/0.01	1.05/0.02	-0.14/0.01	13.32/0.06	45.57/0.04	45.93/0.06
J1716.7-8112		IU			44.85/0.09	44.66/0.13			-0.14/0.01	14.73/0.17	46.09/0.07	46.35/0.15
J1719.2+1744	0.137	LB	41.49/0.01	43.97/0.04	42.53/0.07	44.09/0.03	0.55/0.01	1.53/0.04	-0.11/0.01	13.91/0.10	44.02/0.08	44.45/0.11
J1719.3+1206		HU	41.73/0.01			44.95/0.09			-0.07/0.01	15.93/0.30	44.62/0.06	45.16/0.09
J1722.7+6104	2.058	IF	43.45/0.04	45.89/0.04	45.02/0.07	46.70/0.11	0.56/0.02	1.32/0.04	-0.12/0.01	13.83/0.18	46.06/0.05	46.46/0.07
J1723.5-5609		HU				45.05/0.12			-0.06	16.44	45.09	45.66/0.00
J1723.7-7713		LU				45.49/0.05			-0.21/0.05	13.07/0.24	45.16/0.30	45.37/0.73
J1723.9+4004	1.049	IF	43.34/0.01		45.02/0.12	46.33/0.04			-0.09/0.01	14.47/0.20	45.94/0.09	46.41/0.13
J1725.0+1152	0.018	HB	39.05/0.01	43.59/0.03	42.12/0.07	42.53/0.02	0.18/0.01	1.54/0.04	-0.09/0.01	16.23/0.33	43.40/0.10	43.76/0.14
J1725.3+5853	0.297	IB	41.33/0.01	44.77/0.01		44.36/0.07	0.38/0.00		-0.10/0.02	14.98/0.61	44.68/0.09	45.10/0.12
J1727.1+4531	0.717	LF	43.21/0.01	45.86/0.04	44.57/0.11	45.90/0.03	0.52/0.01	1.48/0.05	-0.15/0.01	13.43/0.07	45.94/0.05	46.26/0.07
J1728.0+1217	0.588	LF	42.61/0.01	44.65/0.03		45.38/0.07	0.63/0.01		-0.15/0.02	12.97/0.20	44.92/0.15	45.28/0.21

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1728.3+5013	0.055	HB	40.26/0.01	43.82/0.03	43.50/0.07	43.05/0.04	0.35/0.01	1.12/0.04	-0.09/0.01	15.81/0.18	43.84/0.04	44.27/0.06
J1728.5+0428	0.296	LF	42.28/0.01	45.21/0.03	43.87/0.03	44.84/0.06	0.47/0.01	1.49/0.02	-0.15/0.01	13.32/0.09	44.94/0.08	45.25/0.12
J1730.6+3711	0.204	LB	40.90/0.02			43.96/0.07			-0.20/0.02	13.54/0.16	44.51/0.09	44.70/0.15
J1733.0-1305	0.902	LF	44.23/0.01	45.68/0.02	45.70/0.07	46.70/0.02	0.74/0.01	0.99/0.03	-0.15/0.01	12.62/0.21	46.12/0.10	46.51/0.14
J1734.3+3858	0.976	IF	43.42/0.01	45.27/0.04	44.61/0.05	46.46/0.02	0.67/0.01	1.24/0.03	-0.15/0.01	13.74/0.06	46.46/0.06	46.76/0.10
J1735.4-1118		IU	41.89/0.01			45.26/0.08			-0.09/0.02	14.30/0.42	44.24/0.05	44.71/0.08
J1736.0+2033		LU	41.36/0.02	44.79/0.12		44.86/0.06	0.38/0.02		-0.17/0.05	13.79/0.43	45.02/0.27	45.25/0.41
J1736.4+0634	2.387	LF	42.95/0.01	45.62/0.03		47.25/0.08	0.52/0.01		-0.26/0.03	12.82/0.08	46.41/0.15	46.53/0.24
J1739.4+4955	1.545	IF	43.64/0.01	46.22/0.04	45.31/0.11	46.73/0.03	0.53/0.01	1.33/0.06	-0.09/0.01	14.34/0.09	46.07/0.07	46.57/0.09
J1740.3+4736	0.952	LF	43.38/0.01	45.27/0.04	44.78/0.12	45.29/0.10	0.66/0.01	1.18/0.06	-0.14/0.01	12.90/0.11	45.54/0.07	45.91/0.10
J1740.3+5211	1.375	LF	43.72/0.01	46.54/0.04	45.51/0.07	46.80/0.03	0.49/0.01	1.38/0.04	-0.13/0.01	13.42/0.09	46.29/0.05	46.68/0.06
J1740.4+5347	0.435	IU	41.49/0.01	44.51/0.01		44.51/0.09	0.45/0.00		-0.11/0.02	14.40/0.46	44.47/0.04	44.86/0.06
J1742.2+5947	0.400	IB	41.75/0.01	45.17/0.01	43.11/0.07	44.73/0.07	0.38/0.00	1.76/0.03	-0.14/0.01	13.96/0.08	45.03/0.04	45.33/0.05
J1743.9+1934	0.084	HB	41.06/0.04		43.30/0.07	43.11/0.07			-0.09/0.01	15.48/0.35	44.44/0.12	44.85/0.17
J1744.3-0353	1.034	IF	43.74/0.01	46.22/0.01	45.68/0.09	45.95/0.09	0.55/0.01	1.20/0.04	-0.12/0.01	14.06/0.10	46.89/0.08	47.27/0.10
J1745.4-0754		IB	43.11/0.01	45.90/0.01		45.28/0.07	0.50/0.00		-0.08/0.01	14.52/0.24	45.28/0.12	45.82/0.17
J1745.7+3952	0.267	IB	42.16/0.02	44.61/0.04	43.61/0.07	43.62/0.20	0.56/0.01	1.37/0.04	-0.09/0.02	14.17/0.39	44.59/0.10	45.08/0.14
J1747.1+0139		LU	41.74/0.01			45.25/0.11			-0.14/0.01	13.76/0.15	44.59/0.05	44.92/0.08
J1748.0+3405	2.763	IF	43.64/0.01	46.35/0.04		47.13/0.06	0.51/0.01		-0.15/0.03	13.63/0.37	46.48/0.17	46.79/0.26
J1748.6+7005	0.770	IB	43.18/0.01	46.41/0.04	45.00/0.03	46.28/0.02	0.42/0.01	1.52/0.03	-0.10/0.00	14.27/0.11	45.93/0.05	46.39/0.06
J1749.1+4322	0.215	IB	41.61/0.01	43.35/0.04	43.09/0.14	44.47/0.04	0.68/0.01	1.10/0.07	-0.09/0.01	13.95/0.14	43.90/0.08	44.40/0.11
J1751.5+0939	0.322	LB	42.32/0.01	45.59/0.03	44.21/0.02	45.40/0.02	0.41/0.01	1.51/0.02	-0.18/0.01	12.99/0.06	45.50/0.04	45.76/0.05
J1753.5-5010		IU				45.33/0.07			-0.16/0.02	14.25/0.32	45.88/0.11	46.13/0.25
J1754.1+3212		IB	41.85/0.02			45.77/0.02			-0.12/0.02	14.85/0.25	45.30/0.18	45.65/0.27
J1754.3-6424	1.255	IB				46.12/0.08			-0.09/0.01	14.20/0.19	45.22/0.05	45.72/0.06
J1756.3+5523	2.085	HB	42.37/0.03	47.00/0.00	46.87/0.07	46.33/0.07	0.17/0.01	1.05/0.03	-0.07/0.01	16.96/0.63	46.89/0.15	47.33/0.19
J1756.9+7032	0.407	HB	40.77/0.02	44.05/0.09	44.76/0.05	44.02/0.17	0.40/0.02	0.74/0.05	-0.07/0.01	16.87/0.47	44.88/0.10	45.35/0.12
J1757.1+1533		LU	42.22/0.01	45.38/0.04		44.83/0.10	0.43/0.01		-0.25/0.05	13.00/0.15	45.53/0.31	45.65/0.54
J1757.4+6536		LU	41.57/0.02			44.74/0.10			-0.19/0.10	13.22/0.58	44.64/0.81	44.87/1.27
J1800.5+7827	0.680	IB	43.55/0.01	46.30/0.04	44.98/0.05	46.33/0.01	0.50/0.01	1.49/0.03	-0.11/0.00	13.90/0.08	46.18/0.03	46.59/0.04
J1801.5+4403	0.663	LF	43.04/0.01	46.35/0.04	44.88/0.06	45.53/0.07	0.40/0.01	1.54/0.04	-0.15/0.01	13.52/0.11	45.92/0.07	46.24/0.10
J1806.7+6949	0.051	IB	41.29/0.02	44.27/0.04	42.84/0.02	43.58/0.02	0.46/0.01	1.53/0.02	-0.09/0.00	14.60/0.09	44.05/0.03	44.51/0.05
J1807.8+6427	0.239	IU	41.04/0.02		42.93/0.07	43.85/0.10			-0.15/0.01	14.21/0.08	44.56/0.04	44.83/0.07
J1807.8-5011	1.606	IF		45.89/0.03	45.09/0.09	46.31/0.11		1.30/0.05	-0.12/0.02	13.65/0.24	45.91/0.08	46.31/0.13
J1808.0+4652	0.450	IB	41.64/0.01		43.83/0.07	44.14/0.14			-0.12/0.01	14.53/0.10	44.98/0.06	45.32/0.09

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J1809.4+2040		IB	41.76/0.01			44.78/0.12			-0.11/0.01	14.93/0.12	45.48/0.08	45.84/0.11
J1809.7+2909		IB	41.95/0.01			45.30/0.04			-0.10/0.02	15.02/0.53	45.29/0.06	45.70/0.08
J1810.8+1609		HB	41.57/0.01			45.31/0.06			-0.09/0.01	15.31/0.21	44.99/0.03	45.42/0.04
J1811.2+0340		HB	41.36/0.02			45.00/0.07			-0.11	15.14	45.33	45.68/0.00
J1813.6+0614		LB	42.32/0.01	45.44/0.03		45.17/0.06	0.44/0.01		-0.15/0.05	13.26/0.36	45.04/0.30	45.36/0.42
J1813.6+3143	0.117	IB	40.90/0.01		42.69/0.07	43.87/0.04			-0.09/0.01	14.97/0.40	43.92/0.10	44.35/0.15
J1816.9-4944		IU				45.17/0.06			-0.07/0.01	14.91/0.36	45.06/0.04	45.61/0.04
J1818.6+0903	0.354	LF	41.48/0.01			45.13/0.05			-0.15/0.05	13.65/0.57	44.42/0.25	44.74/0.38
J1819.1+2134		HU	41.86/0.01			45.04/0.08			-0.07	17.20	45.76	46.24/0.00
J1820.3+3625		HU	41.11/0.02			44.49/0.12			-0.09	15.74	44.86	45.27/0.00
J1823.4+6857		IB	42.38/0.01			45.36/0.04			-0.11/0.01	14.05/0.12	45.08/0.11	45.49/0.16
J1823.6-3453		HU	42.09/0.01			45.29/0.04			-0.04/0.00	19.43/0.55	46.54/0.09	47.12/0.11
J1824.2+5649	0.664	LB	43.33/0.01	45.88/0.04	45.07/0.03	46.03/0.03	0.54/0.01	1.30/0.03	-0.13/0.01	13.25/0.14	45.64/0.06	46.04/0.08
J1824.4+4310	0.487	HU				44.20/0.15			-0.07	16.54	45.12	45.61/0.00
J1825.2-5230		IU				45.52/0.03			-0.10/0.01	14.31/0.28	45.10/0.04	45.53/0.06
J1829.4+5402	0.177	IB	40.40/0.02		42.78/0.07	43.89/0.05			-0.13/0.01	14.49/0.11	43.94/0.05	44.25/0.08
J1829.8+1328		IB	42.02/0.01			44.87/0.11			-0.11	14.57	45.17	45.56/0.00
J1830.0-4439		IU				45.50/0.04			-0.09/0.01	14.69/0.31	45.20/0.06	45.67/0.07
J1830.1+0617	0.745	IF	42.88/0.01		45.06/0.06	45.88/0.04			-0.11/0.01	14.76/0.17	46.49/0.20	46.85/0.28
J1832.4-5659		HB				45.42/0.05			-0.09/0.01	15.11/0.41	45.42/0.09	45.87/0.13
J1833.6-2103	2.507	LF	45.33/0.01		46.50/0.10	48.53/0.01			-0.20/0.01	11.60/0.04	46.51/0.04	46.84/0.07
J1836.3+3137		IB	41.62/0.02			45.37/0.06			-0.12/0.01	14.87/0.18	45.20/0.13	45.54/0.18
J1838.8+4802	0.300	IB	40.94/0.01		43.62/0.07	44.60/0.04			-0.13/0.01	14.57/0.15	44.68/0.10	44.98/0.14
J1841.2+2910		HU	41.78/0.02			44.49/0.12			-0.08/0.01	16.45/0.34	45.92/0.09	46.34/0.12
J1841.7+3218		HB	41.38/0.02			45.31/0.05			-0.05	18.57	45.41	45.98/0.00
J1842.8+6810	0.472	LF	42.78/0.01	44.91/0.04	44.55/0.04	44.82/0.10	0.61/0.01	1.13/0.03	-0.11/0.01	13.52/0.29	45.22/0.13	45.66/0.16
J1848.4+3216	0.798	LF	43.06/0.01	45.18/0.04	44.37/0.03	46.30/0.04	0.62/0.01	1.30/0.02	-0.14/0.01	13.15/0.20	45.51/0.11	45.86/0.15
J1848.9+4247		HB	41.38/0.02		45.20/0.07	44.45/0.17			-0.06/0.01	17.78/0.88	45.14/0.15	45.67/0.21
J1849.2+6705	0.657	LF	42.89/0.01	45.47/0.04	44.61/0.05	46.24/0.01	0.53/0.01	1.32/0.03	-0.14/0.01	13.39/0.10	45.83/0.06	46.18/0.08
J1849.4-4312		IB				45.41/0.05			-0.13/0.02	14.23/0.40	45.21/0.11	45.55/0.21
J1849.5+2751		IB	41.72/0.01			45.30/0.07			-0.12/0.02	14.10/0.32	44.65/0.07	45.02/0.10
J1852.4+4856	1.250	LF	43.11/0.01	45.64/0.04		46.63/0.03	0.54/0.01		-0.15/0.01	13.08/0.10	45.61/0.09	45.95/0.13
J1855.1-6008		HU				44.37/0.14			-0.04/0.01	19.62/1.16	45.73/0.29	46.37/0.27
J1902.9-6745	0.254	LF		44.81/0.04		44.44/0.07			-0.20/0.04	12.87/0.13	44.41/0.25	44.64/0.57
J1903.2+5541		IB	42.46/0.02		44.07/0.07	45.76/0.02			-0.13/0.01	14.21/0.18	45.45/0.10	45.79/0.15

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J2005.2+7752	0.342	LB	42.61/0.02	44.91/0.03	44.11/0.08	45.14/0.03	0.58/0.01	1.30/0.04	-0.12/0.01	13.55/0.08	45.08/0.07	45.49/0.09
J2006.0-2311	0.830	IF	42.86/0.01			45.90/0.06			-0.11/0.02	13.82/0.32	45.13/0.14	45.57/0.20
J2007.3+6605	1.325	LF	43.49/0.01	45.25/0.03		46.33/0.07	0.68/0.01		-0.13/0.01	12.69/0.07	45.46/0.06	45.88/0.08
J2009.3-4849	0.071	HB	41.27/0.04	45.69/0.04	44.27/0.02	43.70/0.02	0.20/0.02	1.53/0.02	-0.08/0.01	15.95/0.22	44.78/0.06	45.24/0.09
J2010.3+7228		LB	43.02/0.01	44.72/0.03		45.57/0.04	0.69/0.01		-0.11/0.01	13.31/0.16	45.11/0.06	45.58/0.09
J2012.0+4629		HB	42.83/0.02		45.12/0.07	45.76/0.03			-0.06/0.01	15.78/0.46	45.25/0.13	45.86/0.17
J2014.3-0047	0.230	HB	41.32/0.01			44.14/0.07			-0.06/0.01	16.26/0.57	44.05/0.11	44.62/0.15
J2014.5+0648		IU	41.17/0.03			45.00/0.08			-0.13/0.00	14.96/0.01	45.42/0.01	45.72/0.01
J2014.9+1623		HU	42.65/0.02			45.09/0.09			-0.07/0.01	15.13/0.21	44.84/0.07	45.42/0.10
J2015.2-0138		IB	43.01/0.01	45.13/0.03		45.42/0.05	0.62/0.01		-0.08/0.01	14.72/0.37	45.45/0.04	45.96/0.06
J2015.6+3709	0.859	IF	43.75/0.01		44.85/0.07	47.04/0.02			-0.14/0.01	13.84/0.06	46.74/0.11	47.06/0.17
J2016.4-0905	0.367	IB	41.52/0.01			44.98/0.04			-0.13/0.02	14.47/0.19	44.98/0.19	45.31/0.28
J2022.2-4515		HB				45.24/0.07			-0.14/0.02	15.33/0.50	46.87/0.10	47.12/0.23
J2022.5+7612	0.594	IB	42.71/0.01	45.49/0.03		45.64/0.04	0.50/0.01		-0.09/0.01	14.61/0.38	45.54/0.09	46.02/0.11
J2024.4-0848		IU	41.54/0.01		45.22/0.06	44.72/0.09			-0.13/0.08	14.42/1.46	44.94/0.32	45.27/0.20
J2024.4-3254	1.465	IF	43.81/0.01	45.86/0.04		46.57/0.08	0.63/0.01		-0.09/0.01	13.78/0.18	45.70/0.06	46.24/0.08
J2025.2+3340	0.219	LU	42.28/0.01	44.58/0.00	42.68/0.07	45.12/0.04	0.59/0.00	1.70/0.02	-0.22/0.01	12.16/0.05	44.41/0.08	44.66/0.13
J2025.6-0736	1.388	LF	43.95/0.01		45.47/0.09	47.24/0.01			-0.23/0.04	12.97/0.08	46.67/0.24	46.83/0.46
J2026.3+7644		HU				44.49/0.15			-0.08/0.03	16.54/1.42	45.07/0.31	45.49/0.20
J2031.8+1223	1.215	LB	43.71/0.01	46.17/0.04		46.30/0.06	0.56/0.01		-0.11/0.01	13.60/0.25	45.98/0.10	46.43/0.14
J2033.6+6309		LU	41.97/0.01			44.61/0.13			-0.14/0.03	13.66/0.32	44.64/0.13	44.98/0.20
J2034.3+1155	0.607	IF	42.63/0.01		44.18/0.07	45.32/0.09			-0.12/0.01	14.32/0.31	45.78/0.12	46.16/0.16
J2035.3+1055	0.601	IF	43.12/0.01	46.59/0.03	44.00/0.07	45.86/0.03	0.37/0.01	1.95/0.04	-0.12/0.01	14.06/0.22	45.89/0.11	46.28/0.16
J2036.4+6551		IB	42.16/0.02			45.09/0.06			-0.13/0.00	14.16/0.00	45.00/0.00	45.32/0.00
J2036.6-3325		HU	40.49/0.07			43.77/0.20			-0.08/0.01	17.00/0.46	45.08/0.10	45.51/0.12
J2036.8-2830	2.308	LF	43.03/0.01	45.56/0.04		46.92/0.09	0.54/0.01		-0.28/0.04	12.72/0.12	46.56/0.26	46.66/0.42
J2038.8+5113	1.686	LF	44.77/0.01			47.02/0.08			-0.10/0.01	12.70/0.31	46.09/0.08	46.64/0.12
J2039.0-1047		IB	42.33/0.01	44.69/0.13		45.58/0.03	0.57/0.03		-0.10/0.04	14.41/0.96	45.16/0.12	45.59/0.16
J2039.5+5217	0.053	IB	39.53/0.02	44.22/0.01	42.18/0.07	42.54/0.15	0.15/0.00	1.75/0.03	-0.16/0.01	14.48/0.17	43.58/0.12	43.81/0.18
J2040.2-7115	0.162	HU			44.37/0.05	43.69/0.06			-0.07/0.01	16.22/0.82	44.91/0.19	45.39/0.25
J2041.7-3732	0.099	IB	40.41/0.02			43.02/0.11			-0.15/0.02	14.62/0.21	44.93/0.21	45.19/0.28
J2042.1+2428	0.104	HB	40.36/0.01			43.26/0.08			-0.12/0.01	15.42/0.15	44.65/0.05	44.96/0.07
J2046.7-1011		IU	41.99/0.02			44.30/0.14			-0.11/0.01	14.68/0.21	45.16/0.16	45.53/0.23
J2049.0-6801		HU				44.85/0.09			-0.06/0.02	16.14/1.45	45.15/0.16	45.71/0.20
J2050.2+0409		LB	42.79/0.01	44.73/0.04		45.11/0.07	0.65/0.01		-0.15/0.01	13.26/0.11	45.18/0.05	45.52/0.09

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J2051.8-5535		IU				45.08/0.09			-0.07/0.01	14.27/0.35	44.36/0.06	44.94/0.07
J2055.0+0016	0.151	IB	40.60/0.01	44.23/0.00	43.32/0.07	43.21/0.14	0.34/0.00	1.34/0.03	-0.15/0.02	13.99/0.19	44.01/0.07	44.28/0.11
J2055.2-0019	2.085	HB	42.76/0.01	46.33/0.12	46.99/0.04	45.90/0.10	0.35/0.02	0.76/0.06	-0.08/0.02	15.67/0.66	46.34/0.08	46.78/0.10
J2056.2-4714	1.489	LF	44.26/0.09	46.09/0.04	45.82/0.09	47.34/0.01	0.67/0.02	1.10/0.05	-0.13/0.01	13.33/0.10	46.54/0.06	46.93/0.08
J2056.7+4938		HU	42.19/0.01		45.92/0.01	45.19/0.06			-0.06/0.00	17.03/0.19	45.95/0.06	46.45/0.07
J2103.9-3546		LU	41.84/0.02			45.25/0.06			-0.13/0.00	13.61/0.05	44.29/0.02	44.67/0.03
J2103.9-6233		HU		45.80/0.02		45.33/0.03			-0.10/0.01	15.30/0.23	45.69/0.04	46.06/0.08
J2104.2-0211		HU	41.11/0.02		44.55/0.11	44.07/0.16			-0.11/0.01	15.25/0.22	45.18/0.12	45.51/0.16
J2106.1+2505		LU	42.05/0.01			44.99/0.11			-0.13/0.02	13.42/0.19	44.36/0.10	44.75/0.15
J2107.7-4822		LU				44.97/0.13			-0.18/0.05	13.36/0.38	44.90/0.28	45.14/0.65
J2108.6-0250	0.149	LB	40.93/0.01			43.31/0.12			-0.22/0.04	13.23/0.22	44.71/0.21	44.87/0.32
J2108.6-8619		IU				44.34/0.18			-0.10/0.00	15.02/0.04	44.75/0.02	45.15/0.03
J2109.1-6638		LU		45.16/0.02	45.00/0.09	45.08/0.05		1.06/0.04	-0.15/0.01	13.78/0.14	45.22/0.06	45.51/0.13
J2110.0+0812	1.580	LF	42.82/0.01			46.64/0.05			-0.13/0.06	13.39/0.46	45.28/0.38	45.66/0.54
J2110.3+3540	0.202	HU	42.18/0.01	45.45/0.03		44.11/0.10		0.41/0.01	-0.07/0.01	15.41/0.22	45.12/0.05	45.63/0.07
J2110.3-1013	2.500	IF	44.36/0.01	46.78/0.03		47.10/0.10		0.56/0.01	-0.08/0.02	14.34/0.50	46.60/0.09	47.11/0.13
J2112.7+0819		HU	41.34/0.02			44.91/0.07			-0.09	16.15	45.55	45.95/0.00
J2115.4+2933	1.514	IF	43.77/0.01	45.72/0.03	44.79/0.07	46.74/0.04		1.34/0.04	-0.12/0.01	13.69/0.10	46.25/0.10	46.66/0.14
J2116.1+3339	0.350	IB	41.67/0.01		43.75/0.03	45.28/0.02			-0.11/0.02	14.53/0.39	45.01/0.32	45.38/0.44
J2118.0-3241	0.215	IU	40.52/0.02		43.75/0.10	43.96/0.14			-0.13/0.01	14.80/0.25	44.56/0.08	44.87/0.11
J2118.4+0013	0.463	IF	42.03/0.01	44.66/0.12		44.46/0.12		0.52/0.02	-0.07/0.01	14.99/0.34	44.52/0.02	45.06/0.02
J2121.0+1901	2.180	HF	44.03/0.01		45.13/0.04	47.24/0.03			-0.06/0.00	14.89/0.08	45.89/0.05	46.53/0.07
J2123.6+0533	1.941	LF	43.99/0.01	45.69/0.04	45.42/0.07	46.46/0.08		1.10/0.04	-0.15/0.01	13.40/0.08	46.91/0.05	47.25/0.07
J2126.5-3926		HU	41.86/0.01			44.76/0.11			-0.06/0.01	15.76/0.41	44.44/0.06	45.02/0.08
J2126.5-4605	1.670	LF			43.94/0.07	47.14/0.03			-0.12/0.01	13.36/0.12	46.16/0.14	46.57/0.21
J2127.7+3612		HB	42.33/0.01			45.28/0.05			-0.05/0.01	16.28/1.03	44.91/0.19	45.55/0.24
J2130.8-2745		HB	41.61/0.02		45.14/0.06	44.73/0.08			-0.08/0.01	15.71/0.26	45.28/0.06	45.71/0.08
J2131.5-0915	0.449	HB	41.47/0.02	45.02/0.04	45.39/0.03	45.00/0.05		0.87/0.03	-0.06/0.01	17.13/0.38	45.30/0.07	45.80/0.09
J2131.8-2516		HB	41.08/0.02	44.63/0.04	45.19/0.05	44.86/0.09		0.80/0.03	-0.05/0.01	17.79/1.03	45.13/0.12	45.67/0.15
J2134.1-0152	1.283	LB	43.98/0.02	45.63/0.04	45.00/0.04	46.38/0.04		1.23/0.03	-0.12/0.01	13.17/0.07	46.10/0.05	46.55/0.06
J2135.3-5008	2.181	HF			45.52/0.08	47.07/0.05			-0.10/0.03	14.89/0.25	46.66/0.41	47.08/0.63
J2139.4-4235		IB		45.98/0.04	44.08/0.07	45.91/0.02		1.69/0.04	-0.16/0.01	14.24/0.05	45.92/0.04	46.16/0.09
J2141.6-6412		IU				45.46/0.04			-0.12/0.01	13.80/0.14	44.84/0.07	45.21/0.12
J2141.7-3734	0.423	IF	42.37/0.01		44.26/0.11	44.89/0.08			-0.08/0.01	14.59/0.14	44.89/0.07	45.39/0.09
J2142.2-2546		LU	42.30/0.01	43.82/0.04		44.98/0.08		0.73/0.01	-0.13/0.06	12.99/0.46	44.15/0.33	44.56/0.53

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J2143.1-3928	0.429	IB	41.94/0.02			44.75/0.07			-0.12/0.08	14.18/1.19	44.69/0.39	45.05/0.63
J2143.5+1744	0.211	IF	41.96/0.01	45.27/0.04	44.00/0.09	45.11/0.02	0.40/0.01	1.47/0.05	-0.10/0.01	14.42/0.09	44.91/0.06	45.35/0.08
J2144.2+3132		HU	41.88/0.01			45.16/0.07			-0.08/0.05	15.26/1.88	44.53/0.08	45.04/0.20
J2144.9-3356	1.360	LF	42.78/0.01	45.36/0.04		46.53/0.04	0.53/0.01		-0.17/0.01	13.22/0.07	45.69/0.05	45.97/0.08
J2145.7+0717	0.237	HB	41.26/0.02	44.22/0.01	44.17/0.09	44.29/0.09	0.46/0.00	1.02/0.04	-0.09/0.01	15.43/0.22	44.57/0.06	44.98/0.09
J2146.6-1344		HB	41.40/0.02		44.81/0.10	45.06/0.05			-0.11/0.00	15.21/0.08	45.35/0.05	45.71/0.07
J2146.7-1527	0.698	IF	43.09/0.02	45.68/0.04	44.96/0.10	45.39/0.08	0.53/0.01	1.26/0.05	-0.09/0.01	14.44/0.13	45.58/0.10	46.06/0.14
J2147.2+0929	1.113	IF	43.62/0.01	46.43/0.04	45.13/0.03	46.67/0.03	0.49/0.01	1.48/0.02	-0.13/0.01	13.87/0.15	46.46/0.06	46.81/0.09
J2147.3-7536	1.139	LF	43.83/0.04		45.12/0.07	47.01/0.02			-0.14/0.02	13.31/0.22	46.20/0.14	46.56/0.22
J2149.7+0323		LB	42.04/0.02	45.48/0.02		45.22/0.06	0.38/0.01		-0.26/0.03	13.12/0.10	46.05/0.15	46.14/0.24
J2150.2-1411	0.229	HB			44.64/0.04	44.00/0.08			-0.06/0.01	16.00/0.45	44.60/0.09	45.15/0.10
J2151.6-2744	1.485	LF	43.38/0.01	45.67/0.04	45.70/0.07	46.18/0.11	0.59/0.01	0.99/0.04	-0.18/0.02	13.15/0.08	46.22/0.08	46.47/0.13
J2151.8-3025	2.345	IF	44.33/0.01	46.81/0.04	46.89/0.04	47.16/0.06	0.55/0.01	0.97/0.03	-0.13/0.01	13.67/0.09	46.96/0.04	47.34/0.05
J2152.4+1735	0.874	IB	43.26/0.01	45.61/0.04		45.23/0.12	0.58/0.01		-0.10/0.01	13.82/0.10	45.58/0.05	46.05/0.07
J2152.9-0045	0.341	HB	40.97/0.02	44.61/0.00	44.72/0.05	44.27/0.11	0.34/0.00	0.96/0.02	-0.08/0.01	15.80/0.33	44.54/0.05	45.01/0.07
J2154.0-1137	1.582	LF	42.90/0.01	45.30/0.04		46.66/0.05	0.57/0.01		-0.21/0.04	13.01/0.16	45.99/0.20	46.19/0.31
J2156.0+1818		LU	41.49/0.01	45.07/0.12		44.83/0.08	0.35/0.02		-0.22/0.09	13.54/0.62	45.55/0.64	45.70/0.97
J2156.9-0855	1.017	LB	41.90/0.02	45.48/0.01		45.30/0.11	0.35/0.00		-0.19/0.01	13.59/0.09	45.67/0.05	45.87/0.08
J2157.5+3126	1.486	LF	43.51/0.01	45.33/0.04	44.97/0.04	47.19/0.02	0.67/0.01	1.13/0.03	-0.15/0.01	12.91/0.15	45.71/0.10	46.08/0.14
J2158.0-1501	0.672	LF	43.67/0.01	45.36/0.04	44.69/0.13	45.66/0.04	0.70/0.01	1.25/0.06	-0.13/0.01	13.09/0.07	45.60/0.04	46.00/0.07
J2158.8-3013	0.116	HB	41.30/0.02	45.69/0.07	45.20/0.00	44.93/0.01	0.21/0.02	1.18/0.03	-0.11/0.00	15.67/0.08	45.51/0.04	45.85/0.06
J2159.2-2841	0.271	IU	40.67/0.02		43.34/0.07	44.12/0.08			-0.10	14.91	44.00	44.40/0.00
J2200.2+2139		IB	42.36/0.01	44.72/0.04		44.70/0.12	0.57/0.01		-0.09/0.01	14.12/0.25	44.68/0.05	45.17/0.06
J2201.7+5047	1.899	IF	43.96/0.01		45.47/0.07	47.41/0.03			-0.10/0.01	14.24/0.08	46.50/0.10	46.96/0.14
J2202.4-8339	1.865	IF	44.10/0.04			47.23/0.03			-0.06/0.01	14.68/0.37	45.96/0.07	46.60/0.10
J2202.7+4217	0.069	IB	41.93/0.01	44.25/0.01	43.20/0.06	44.52/0.01	0.58/0.00	1.39/0.03	-0.09/0.00	15.10/0.08	44.78/0.04	45.24/0.05
J2203.4+1725	1.075	LF	43.38/0.01	47.08/0.04	44.90/0.02	46.77/0.02	0.33/0.01	1.80/0.02	-0.17/0.01	13.10/0.06	46.18/0.05	46.48/0.07
J2203.7+3143	0.295	IF	42.71/0.01	45.95/0.03	44.45/0.07	44.36/0.15	0.42/0.01	1.55/0.04	-0.09/0.01	14.43/0.14	45.48/0.06	45.96/0.07
J2204.4+0439	0.027	IB	39.99/0.02	42.46/0.02	41.87/0.09	42.14/0.07	0.55/0.01	1.22/0.04	-0.10/0.01	14.56/0.39	43.27/0.13	43.69/0.15
J2206.9-0031	0.335	LB	41.74/0.01	44.32/0.04		44.67/0.06	0.53/0.01		-0.19/0.04	12.92/0.14	44.35/0.27	44.59/0.44
J2207.8-5345	1.206	IF	44.19/0.02	45.80/0.04	45.14/0.13	46.40/0.05	0.71/0.01	1.24/0.06	-0.09/0.01	13.66/0.22	45.88/0.07	46.40/0.12
J2212.0+2355	1.125	LF	43.39/0.01	45.17/0.04	44.59/0.07	46.23/0.04	0.68/0.01	1.22/0.04	-0.20/0.01	12.79/0.04	46.03/0.04	46.27/0.07
J2212.3-7039		HU				44.92/0.14			-0.07/0.00	16.85/0.30	45.78/0.08	46.23/0.11
J2212.6+2801		HU	42.13/0.01			44.72/0.08			-0.08/0.01	15.45/0.38	45.10/0.05	45.58/0.07
J2213.1-2532	1.833	LF	44.13/0.01			46.69/0.07			-0.12/0.02	13.07/0.24	46.02/0.13	46.47/0.19

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J2217.0+2421	0.505	IB	42.66/0.01	44.50/0.04	43.95/0.07	45.27/0.05	0.67/0.01	1.20/0.04	-0.08/0.01	13.88/0.23	44.73/0.13	45.27/0.17
J2219.2+1806	1.802	LF	43.24/0.01	45.57/0.04		46.50/0.09	0.58/0.01		-0.20/0.03	12.96/0.18	46.13/0.20	46.35/0.31
J2220.3+2812		IU	41.66/0.01			44.51/0.13			-0.14/0.01	14.87/0.13	45.81/0.05	46.08/0.07
J2221.6-5255		HB		45.80/0.02	45.60/0.03	45.18/0.05		1.08/0.02	-0.10/0.01	15.61/0.16	45.75/0.04	46.12/0.07
J2222.3-3500	0.298	IF	42.39/0.01		44.01/0.11	44.18/0.11			-0.07/0.01	14.83/0.22	44.76/0.06	45.30/0.09
J2224.6-1122	0.115	LB	41.35/0.02			43.47/0.09			-0.10/0.02	13.24/0.33	43.15/0.15	43.66/0.21
J2225.8-0454	1.404	LF	44.62/0.01	47.50/0.04	45.67/0.12	46.83/0.03	0.48/0.01	1.67/0.06	-0.12/0.01	13.24/0.08	46.77/0.03	47.20/0.05
J2227.8+0040	2.145	IB	43.18/0.01	46.83/0.01		46.70/0.06	0.34/0.00		-0.14/0.02	14.34/0.31	46.79/0.03	47.09/0.05
J2229.7-0833	1.560	LF	43.90/0.01	46.26/0.04	45.91/0.04	47.24/0.02	0.57/0.01	1.13/0.03	-0.15/0.01	13.34/0.06	46.76/0.04	47.09/0.05
J2230.5-7817		IU				45.33/0.06			-0.10/0.02	13.95/0.33	44.82/0.07	45.27/0.09
J2230.6-4419	1.326	LF				45.98/0.11			-0.17/0.02	12.83/0.09	45.69/0.14	45.99/0.27
J2232.5+1143	1.037	LF	44.43/0.01	46.27/0.12	45.71/0.06	46.88/0.02	0.67/0.02	1.21/0.07	-0.10/0.00	13.65/0.09	46.41/0.04	46.88/0.05
J2232.9-2021		HU				44.81/0.09			-0.11	15.57	45.31	45.66/0.00
J2234.1-2655		IU				44.93/0.07			-0.08/0.02	14.68/0.31	44.59/0.19	45.09/0.24
J2235.3-4835	0.506	LF	42.97/0.04		44.95/0.05	45.30/0.05			-0.16/0.01	13.37/0.07	45.81/0.05	46.11/0.07
J2236.0-1706	0.647	IF	42.65/0.02			45.04/0.10			-0.09/0.02	14.26/0.65	45.04/0.13	45.54/0.18
J2236.0-3629		LB	41.88/0.01			45.32/0.05			-0.21/0.01	13.15/0.09	45.23/0.08	45.43/0.13
J2236.3+2829	0.795	LB	43.38/0.01	45.62/0.04		46.37/0.02	0.59/0.01		-0.17/0.01	12.88/0.06	45.73/0.05	46.02/0.08
J2236.5-1432	0.325	LB	42.27/0.01	44.49/0.04	43.55/0.07	45.58/0.01	0.60/0.01	1.35/0.04	-0.11/0.01	13.63/0.18	44.54/0.08	45.00/0.11
J2237.1-3921	0.297	IF	41.70/0.02	44.20/0.07		44.54/0.06	0.55/0.02		-0.13/0.05	14.03/0.54	44.65/0.23	44.99/0.36
J2240.9+4121	0.726	LB	42.79/0.01	45.17/0.03		45.30/0.10	0.57/0.01		-0.10/0.02	13.59/0.35	45.03/0.11	45.52/0.15
J2243.4-2541	0.774	IB	43.36/0.01	45.88/0.04	44.80/0.07	46.02/0.03	0.54/0.01	1.40/0.04	-0.09/0.01	14.31/0.19	45.76/0.05	46.25/0.07
J2243.6-1230	0.226	HB			44.15/0.07	44.02/0.09			-0.08/0.02	16.53/0.93	44.36/0.17	44.81/0.24
J2243.9+2021		IB	42.08/0.01		44.42/0.07	45.78/0.02			-0.15/0.01	14.44/0.13	45.86/0.07	46.11/0.12
J2246.7-5205	0.194	IU			44.47/0.04	43.23/0.14			-0.16/0.05	14.01/0.57	44.02/0.25	44.27/0.55
J2247.8+4413		HB	41.89/0.02			44.89/0.08			-0.06/0.01	16.58/0.51	45.41/0.08	45.92/0.11
J2248.6-3235	2.268	LF	44.06/0.01			46.80/0.11	0.59/0.01		-0.15/0.02	13.30/0.16	46.79/0.11	47.11/0.16
J2250.1+3825	0.119	IB	40.65/0.01	46.31/0.04	43.24/0.07	43.74/0.04			-0.12/0.01	14.74/0.24	44.13/0.09	44.46/0.13
J2250.3-4206	0.119	IU				43.53/0.06			-0.12/0.02	14.16/0.35	43.52/0.11	43.90/0.19
J2250.7-2806	0.525	LU	42.45/0.01			45.93/0.02			-0.12/0.01	13.41/0.14	44.85/0.10	45.27/0.13
J2251.9+4031	0.229	IB	41.18/0.01			44.46/0.05			-0.11/0.05	14.63/1.05	44.67/0.19	45.04/0.26
J2254.0+1403	0.327	IB	40.60/0.02	44.50/0.00	43.35/0.07	44.46/0.10	0.30/0.01	1.43/0.03	-0.14/0.01	14.42/0.12	44.42/0.03	44.72/0.04
J2254.0+1608	0.859	LF	44.49/0.01	47.54/0.20	46.41/0.02	47.49/0.00	0.45/0.04	1.42/0.08	-0.11/0.01	13.54/0.08	46.71/0.03	47.16/0.05
J2255.1+2411		IB	41.95/0.02	45.59/0.02	44.27/0.07	45.25/0.05	0.34/0.01	1.49/0.03	-0.13/0.02	14.48/0.24	45.36/0.08	45.66/0.12
J2256.7-2011		LB	42.58/0.01	45.01/0.04		45.33/0.04	0.56/0.01		-0.17/0.01	13.32/0.08	45.49/0.06	45.78/0.09

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J2258.0-2759	0.926	LF	43.57/0.01	45.92/0.04	45.07/0.15	46.58/0.02	0.58/0.01	1.31/0.07	-0.20/0.01	12.80/0.11	46.48/0.08	46.72/0.11
J2258.1-8248		HU				45.17/0.06			-0.06/0.01	17.05/0.61	45.54/0.15	46.04/0.19
J2258.3-5526	0.479	HB		45.04/0.14	45.16/0.04	44.70/0.10		0.96/0.07	-0.07/0.01	15.97/0.23	45.09/0.04	45.58/0.05
J2304.6+3704		HB	41.40/0.02		45.30/0.07	45.05/0.06			-0.07/0.01	17.19/0.63	45.50/0.13	45.95/0.19
J2307.4-1208		HB	40.89/0.03		44.84/0.08	44.53/0.12			-0.10/0.01	15.65/0.18	45.11/0.06	45.48/0.07
J2307.7+1449	0.503	LB	41.97/0.01	44.58/0.03		45.34/0.05	0.53/0.01		-0.15/0.05	13.24/0.35	44.45/0.25	44.79/0.38
J2311.0+0204		LB	41.84/0.01	45.88/0.04		45.15/0.07	0.27/0.01		-0.28/0.04	13.19/0.16	46.36/0.33	46.43/0.51
J2311.0+3425	1.817	LF	44.03/0.01			47.44/0.02			-0.11/0.01	13.14/0.13	45.82/0.08	46.31/0.11
J2312.9-6923		HU				44.36/0.13			-0.07/0.00	16.75/0.14	44.70/0.02	45.20/0.03
J2314.0+1443	0.163	IB		43.94/0.04	43.40/0.07	43.71/0.07		1.20/0.04	-0.16/0.02	14.00/0.20	44.20/0.08	44.45/0.17
J2315.7-5018	0.808	LB				45.57/0.06			-0.21/0.01	12.99/0.03	45.98/0.05	46.17/0.13
J2317.3-4534		HU				45.22/0.05			-0.08	15.61	44.95	45.40/0.00
J2319.2-4207	0.055	IB	40.94/0.04		42.53/0.12	42.70/0.07			-0.12/0.01	14.22/0.16	44.17/0.13	44.55/0.18
J2321.2-6439		HU				44.73/0.11			-0.07/0.01	16.88/1.01	45.66/0.23	46.15/0.30
J2321.6+4438	1.310	LF	43.33/0.01	45.07/0.03		46.06/0.13	0.69/0.01		-0.17/0.02	12.71/0.18	45.59/0.12	45.91/0.19
J2321.9+2732	1.253	IF	43.86/0.01			46.25/0.05			-0.09/0.01	14.15/0.33	46.08/0.07	46.60/0.10
J2321.9+3204	1.489	LF	43.28/0.02			46.72/0.03			-0.09/0.02	13.57/0.40	45.42/0.15	45.93/0.19
J2322.5+3436	0.098	IB	40.44/0.01		42.93/0.07	42.67/0.14			-0.13/0.01	14.69/0.26	44.26/0.09	44.55/0.13
J2323.5-0315	1.410	LF	43.80/0.01	46.00/0.04		46.88/0.02	0.60/0.01		-0.13/0.01	13.45/0.08	46.19/0.05	46.58/0.07
J2323.9+4211	0.059	HB	39.06/0.04		42.71/0.07	43.30/0.03			-0.09/0.02	15.81/0.56	43.17/0.19	43.56/0.25
J2324.7-4040	0.174	HB		45.05/0.02	44.66/0.03	44.13/0.04		1.14/0.02	-0.10/0.01	15.50/0.20	44.91/0.05	45.26/0.08
J2325.2+3957		IB	42.10/0.01		43.55/0.07	45.52/0.03			-0.08/0.02	14.77/0.30	44.67/0.22	45.17/0.31
J2325.3-3557	0.360	IF	41.57/0.02			45.17/0.03			-0.14/0.07	14.13/1.02	45.28/0.40	45.57/0.54
J2325.4-4758	0.221	IB			43.89/0.09	44.55/0.04			-0.10/0.00	14.58/0.09	44.51/0.04	44.95/0.06
J2327.7+0941	1.843	LF	43.92/0.01	46.25/0.04	45.94/0.08	47.21/0.04	0.58/0.01	1.12/0.04	-0.18/0.01	12.99/0.09	46.62/0.09	46.88/0.14
J2328.4-4034		IU				45.68/0.03			-0.12/0.02	13.84/0.23	45.06/0.11	45.43/0.19
J2329.2+3754	0.264	HB	40.65/0.02			44.40/0.05			-0.08/0.01	15.99/0.20	44.48/0.03	44.91/0.04
J2329.3-4955	0.518	LF	42.77/0.04	43.82/0.04		46.42/0.01	0.81/0.02		-0.13/0.02	12.68/0.13	44.31/0.11	44.75/0.17
J2329.9-4734	1.304	IF	44.14/0.04	46.63/0.04	45.65/0.10	45.94/0.09	0.55/0.02	1.36/0.05	-0.08/0.00	14.67/0.08	46.53/0.04	47.06/0.05
J2330.4-3726	0.279	IB	41.88/0.01	44.83/0.04	43.30/0.07	44.19/0.09	0.47/0.01	1.57/0.04	-0.12/0.01	14.09/0.10	44.75/0.04	45.14/0.05
J2330.5+1104	1.489	LF	43.96/0.01	46.08/0.04	45.12/0.07	46.41/0.08	0.62/0.01	1.35/0.04	-0.12/0.01	13.28/0.10	45.95/0.05	46.39/0.08
J2330.8-2144	0.563	LF	41.73/0.01			45.61/0.03			-0.17/0.03	13.64/0.19	45.20/0.17	45.43/0.26
J2334.1+0732	0.401	LF	42.53/0.01	45.38/0.04	44.27/0.07	45.02/0.06	0.48/0.01	1.41/0.04	-0.15/0.01	13.53/0.05	45.48/0.04	45.79/0.05
J2334.8+1432	0.415	LB	41.56/0.01	44.82/0.01		45.01/0.04	0.41/0.00		-0.35/0.03	12.72/0.07	46.03/0.25	46.03/0.40
J2335.1-0133	1.184	IF	43.55/0.01	45.79/0.13		46.01/0.09	0.59/0.03		-0.11/0.01	13.71/0.13	46.02/0.06	46.44/0.08

Table 6—Continued

3FGL name	z	C	L_R/σ_{L_R}	L_O/σ_{L_O}	L_X/σ_{L_X}	$L_\gamma/\sigma_{L_\gamma}$	$\alpha_{RO}/\sigma_\alpha$	$\alpha_{OX}/\sigma_\alpha$	P_1/σ_{P_1}	ν_p/σ_{ν_p}	L_p/σ_{L_p}	$L_{bol}/\sigma_{L_{bol}}$
J2336.5+2356	0.127	IU	41.34/0.04			43.38/0.09			-0.08/0.02	15.21/0.85	44.17/0.16	44.67/0.21
J2336.5-4116	1.406	LF	43.50/0.04	45.53/0.04		46.44/0.04	0.63/0.02		-0.13/0.02	13.31/0.15	45.73/0.12	46.12/0.18
J2336.5-7620		HU				45.07/0.07			-0.07/0.01	16.83/0.38	45.90/0.09	46.40/0.12
J2338.1-0229	1.072	LF	43.42/0.02	45.59/0.13		46.41/0.04	0.61/0.03		-0.12/0.01	13.31/0.11	45.60/0.08	46.01/0.11
J2338.7-7401		IU				44.88/0.06			-0.11/0.00	15.09/0.04	45.57/0.01	45.92/0.02
J2339.0+2122	0.291	HB	41.10/0.01			44.40/0.07			-0.11/0.01	15.23/0.37	44.70/0.10	45.06/0.14
J2340.7+8016	0.274	HB	41.07/0.01			44.89/0.02			-0.07/0.03	15.31/1.52	43.68/0.06	44.23/0.20
J2343.6+1551	1.446	LF	43.03/0.01	45.39/0.04		46.12/0.12	0.57/0.01		-0.23/0.03	13.34/0.15	46.54/0.16	46.68/0.28
J2343.7+3437	0.366	HB	41.19/0.02			44.17/0.11			-0.07/0.02	16.66/1.23	45.02/0.19	45.50/0.25
J2345.2-1554	0.621	LF	42.48/0.01	44.97/0.04		46.16/0.06	0.55/0.01	1.30/0.04	-0.16/0.03	13.36/0.17	45.58/0.17	45.87/0.24
J2346.7+0705		IU	42.45/0.02			45.04/0.05			-0.13/0.01	14.36/0.13	45.83/0.06	46.15/0.08
J2347.0+5142	0.044	HB	40.15/0.02	44.40/0.02		43.11/0.03	0.23/0.01	1.53/0.03	-0.09/0.01	16.18/0.22	44.19/0.08	44.58/0.11
J2348.0-1630	0.576	LF	43.29/0.02	45.54/0.04		45.84/0.03	0.59/0.01	1.32/0.05	-0.12/0.01	13.30/0.09	45.60/0.04	46.03/0.06
J2350.4-3004	0.224	IB	40.78/0.01			44.09/0.07			-0.13/0.01	14.33/0.25	44.44/0.10	44.75/0.13
J2352.0+1752	1.450	IB	42.51/0.01	46.17/0.13		46.02/0.07	0.34/0.03		-0.12/0.02	14.58/0.48	45.83/0.05	46.18/0.08
J2353.6-3037	0.737	IB	42.87/0.02			45.40/0.07			-0.10/0.01	14.10/0.20	45.27/0.09	45.74/0.12
J2354.1+4605	1.992	LF	44.39/0.01			46.61/0.09			-0.14/0.01	12.59/0.10	46.14/0.05	46.54/0.07
J2355.5+8154	1.344	LF	43.51/0.01			46.15/0.16			-0.15/0.01	13.04/0.21	46.01/0.12	46.36/0.17
J2356.0+4037	0.331	HB	40.95/0.02			44.21/0.09			-0.09/0.03	16.69/1.96	45.80/0.63	46.18/0.20
J2357.3-0150	0.812	LB	42.73/0.01	44.70/0.04		45.25/0.10	0.64/0.01		-0.12/0.02	13.19/0.13	44.77/0.11	45.19/0.16
J2357.4-1716		HB	41.69/0.02	45.18/0.04		44.78/0.08	0.37/0.01	0.75/0.03	-0.06/0.01	17.07/1.15	45.34/0.24	45.88/0.30
J2357.8-5310	1.006	IF	43.76/0.04	46.12/0.04		46.14/0.05	0.57/0.02	1.22/0.04	-0.12/0.01	13.73/0.16	46.21/0.07	46.61/0.10
J2358.0-4552	0.444	LF		44.59/0.04		44.80/0.09			-0.16/0.02	13.36/0.14	45.15/0.15	45.43/0.31
J2358.2-1022	1.636	LF	43.84/0.02	46.22/0.04		46.38/0.11	0.57/0.01		-0.20/0.01	12.93/0.06	46.59/0.09	46.82/0.15
J2358.3-2853		LU	42.20/0.01			44.90/0.09			-0.13/0.01	13.55/0.15	44.57/0.07	44.95/0.10
J2358.9+3926	1.198	IF	43.32/0.01			45.78/0.10			-0.08/0.01	14.51/0.20	45.86/0.19	46.36/0.25
J2359.3-3038	0.165	HB	40.73/0.02	44.05/0.05		43.84/0.06	0.40/0.01	0.62/0.02	-0.06/0.00	17.87/0.32	44.86/0.06	45.37/0.08
J2359.5-2052	0.096	IB	41.11/0.02			43.08/0.09			-0.09/0.02	14.38/0.42	43.64/0.11	44.13/0.14

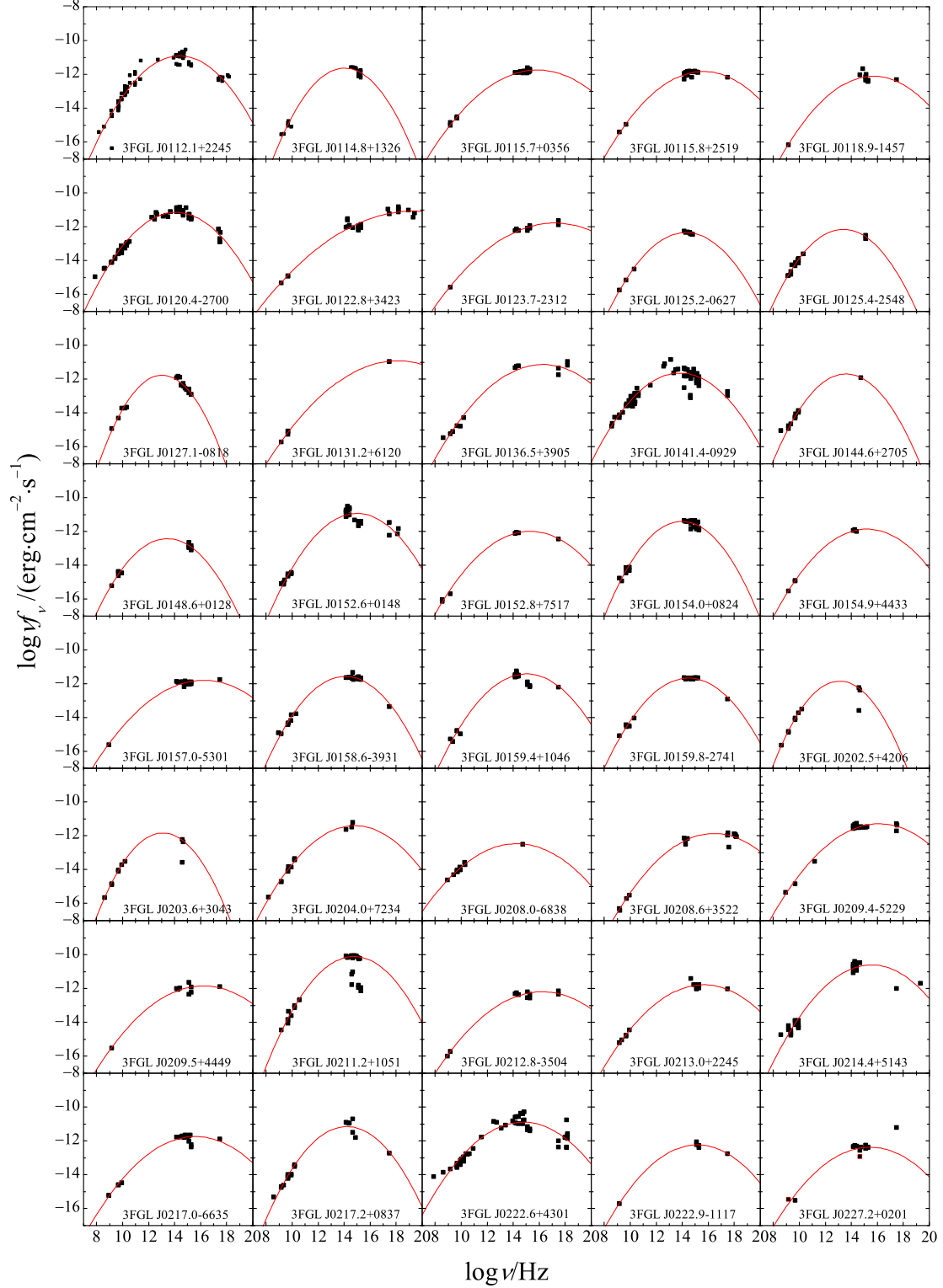


Fig. 16.— Appendix: SED figures for BL Lacs.

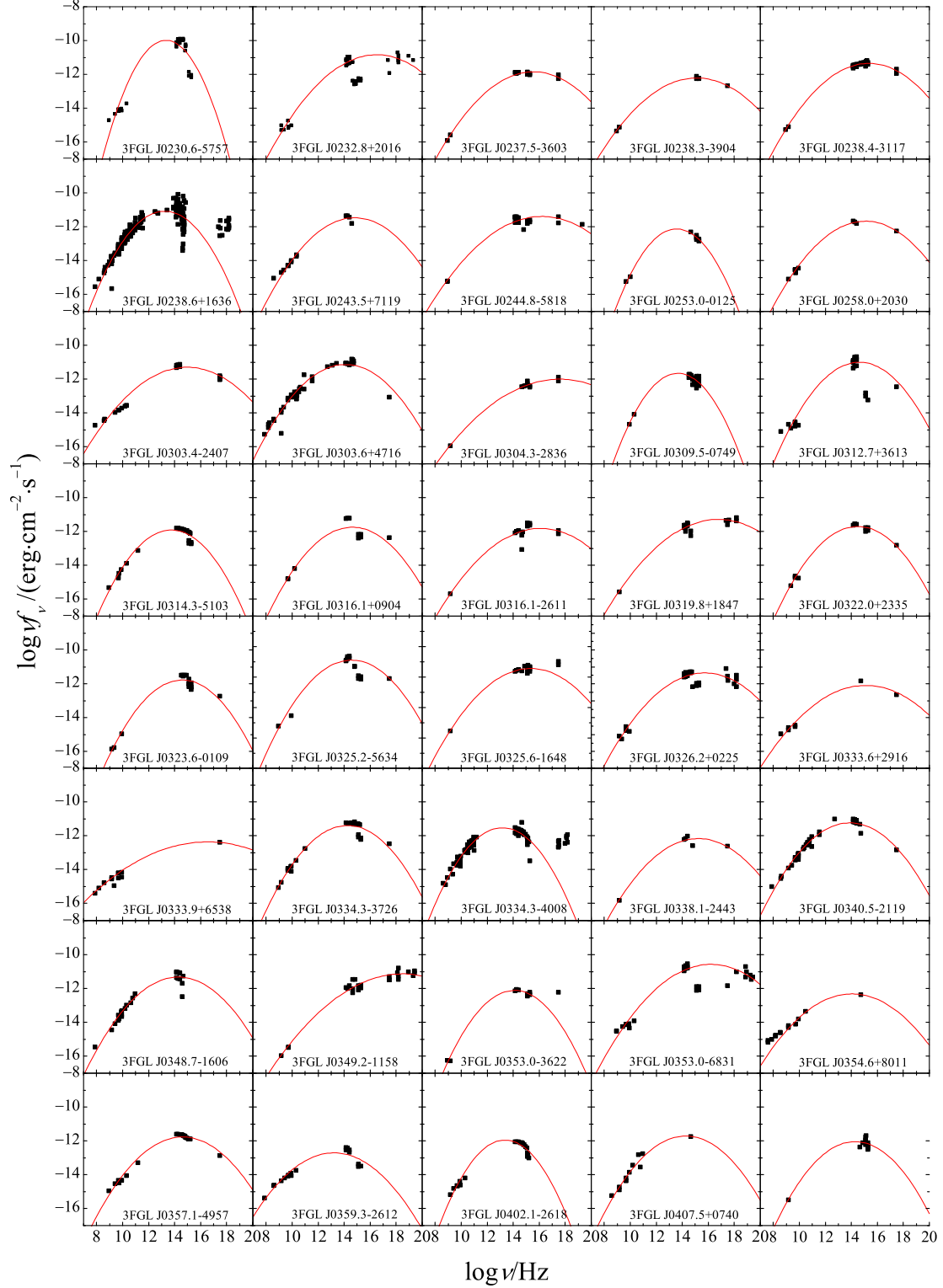


Fig. 17.— Appendix: SED figures for BL Lacs.

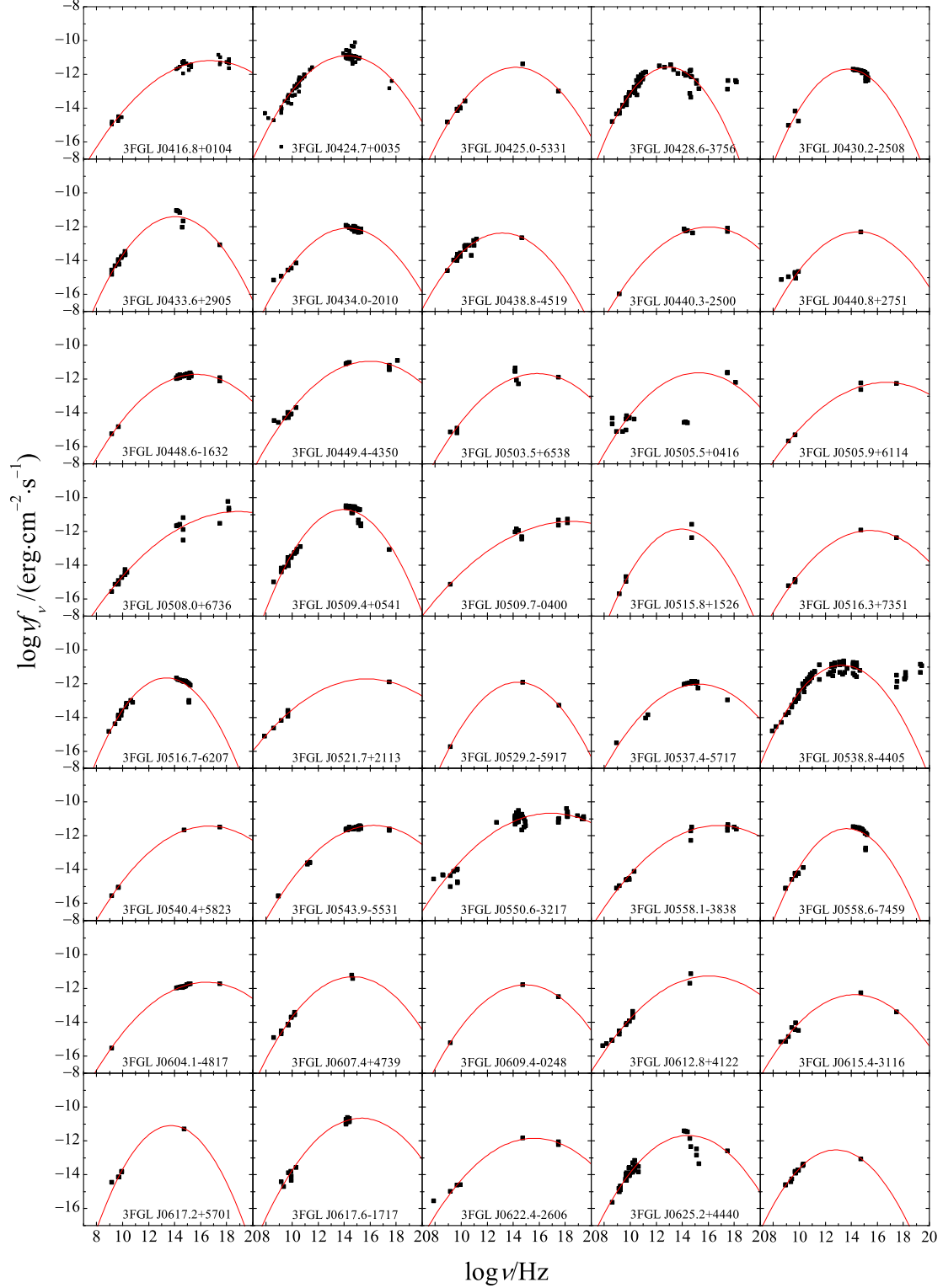


Fig. 18.— Appendix: SED figures for BL Lacs.

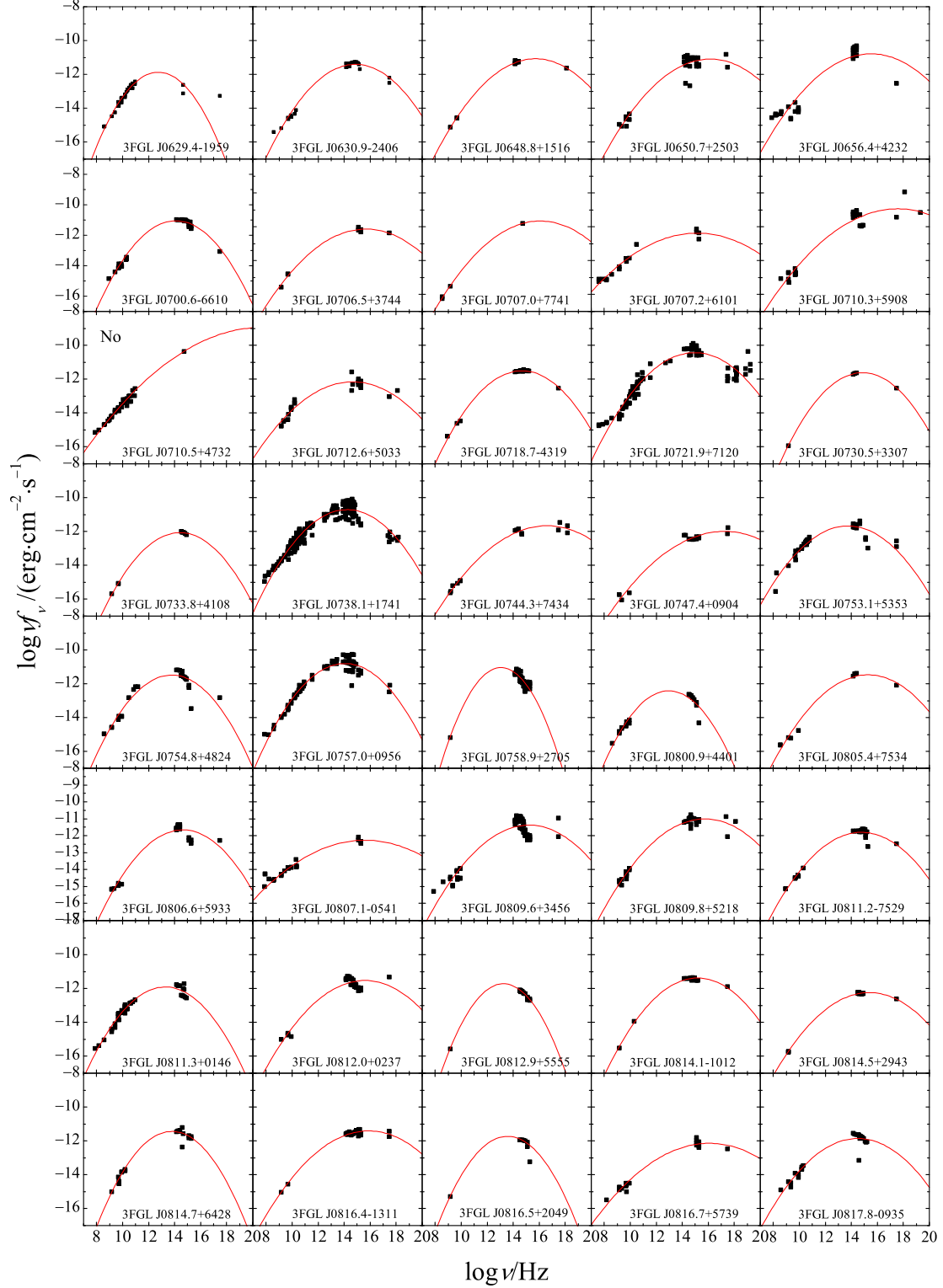


Fig. 19.— Appendix: SED figures for BL Lacs.

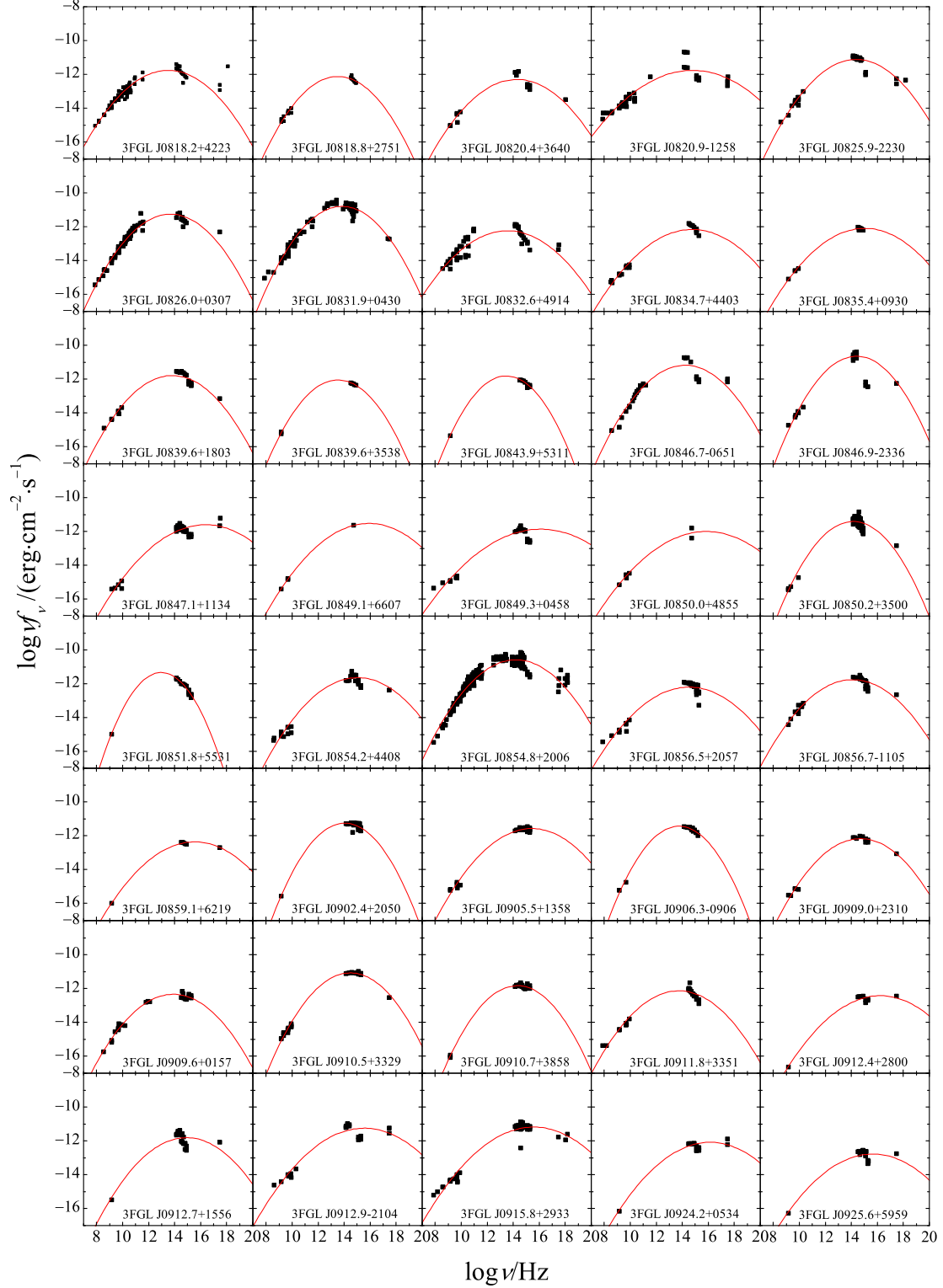


Fig. 20.— Appendix: SED figures for BL Lacs.

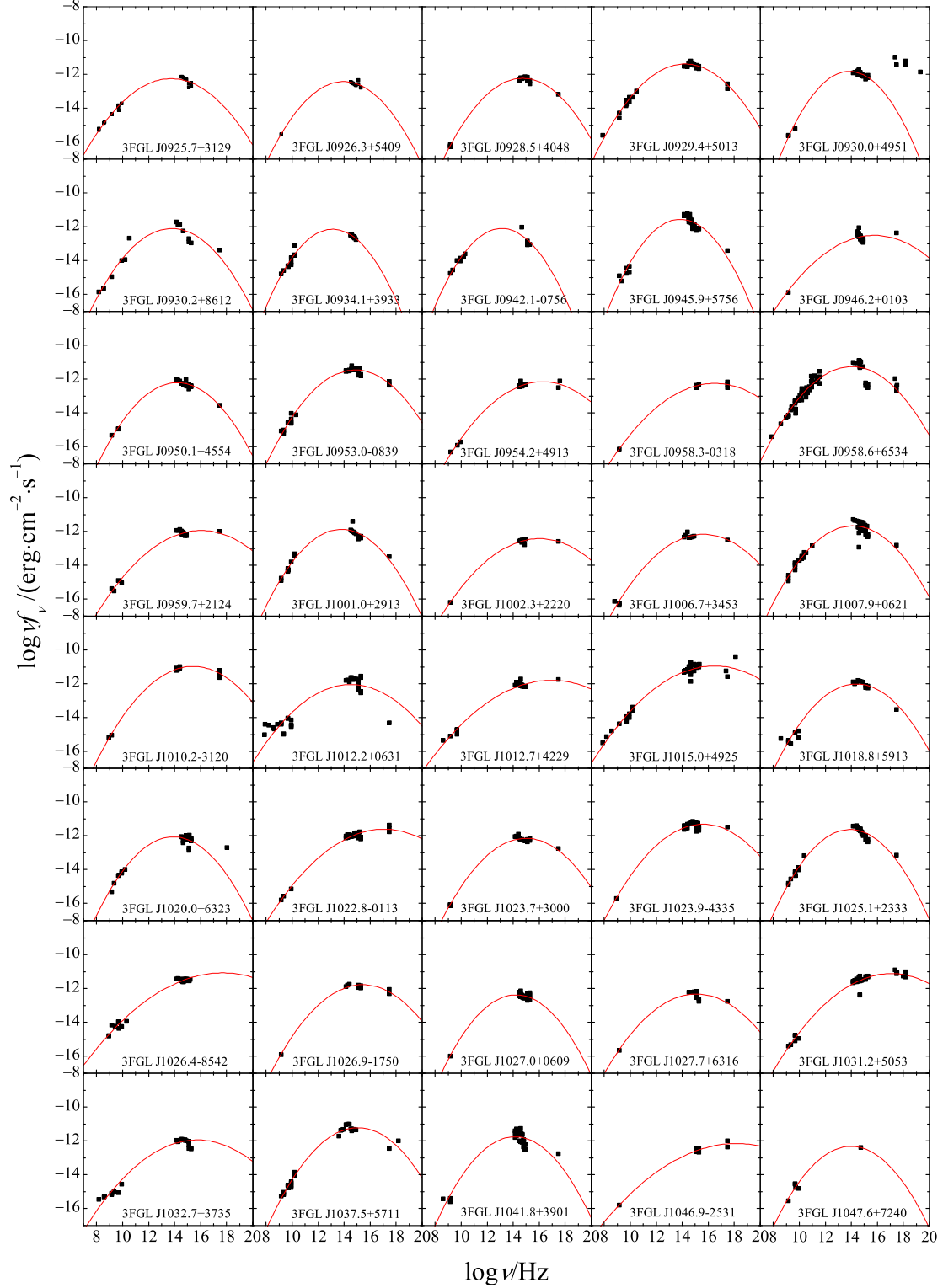


Fig. 21.— Appendix: SED figures for BL Lacs.

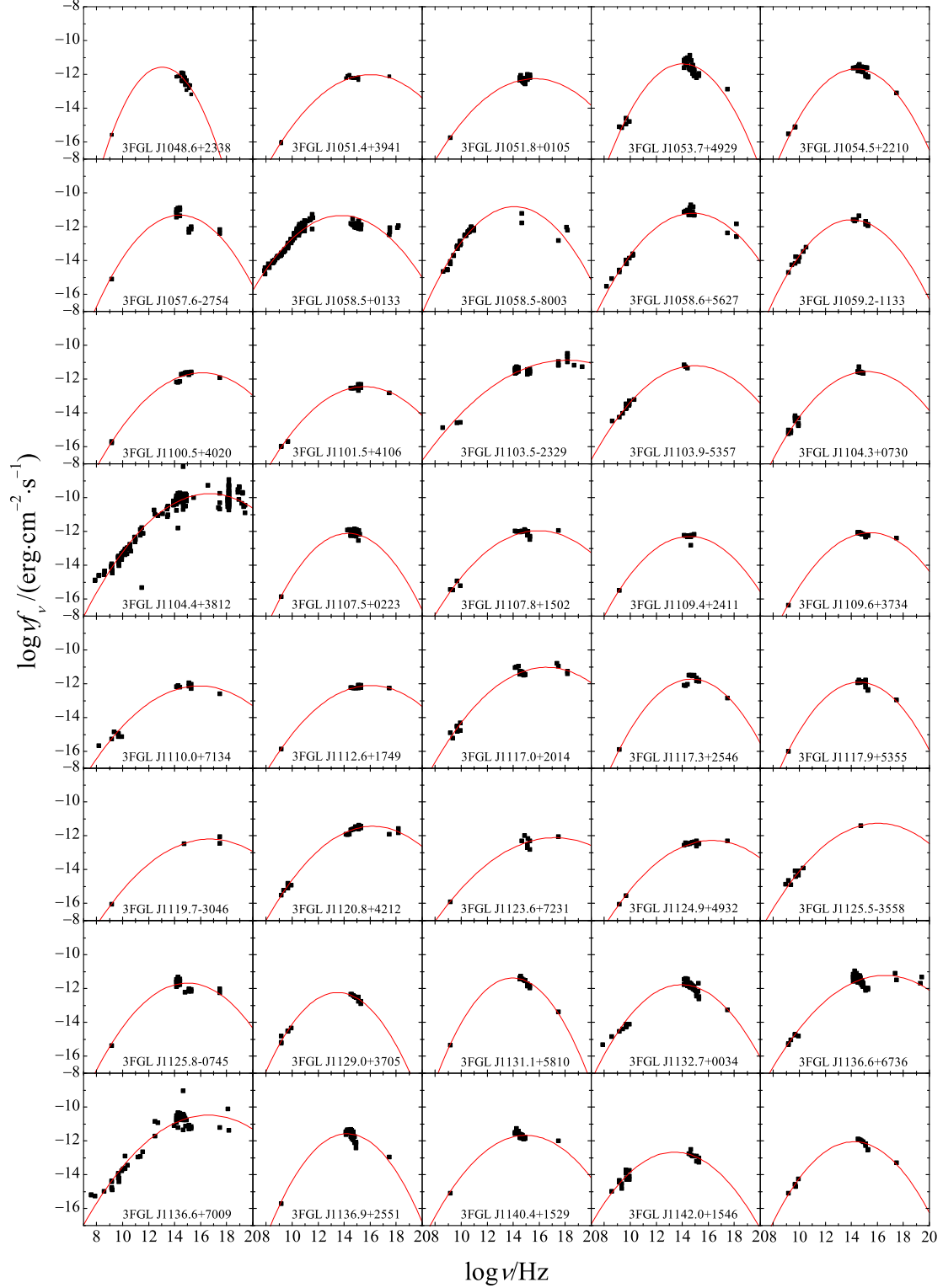


Fig. 22.— Appendix: SED figures for BL Lacs.

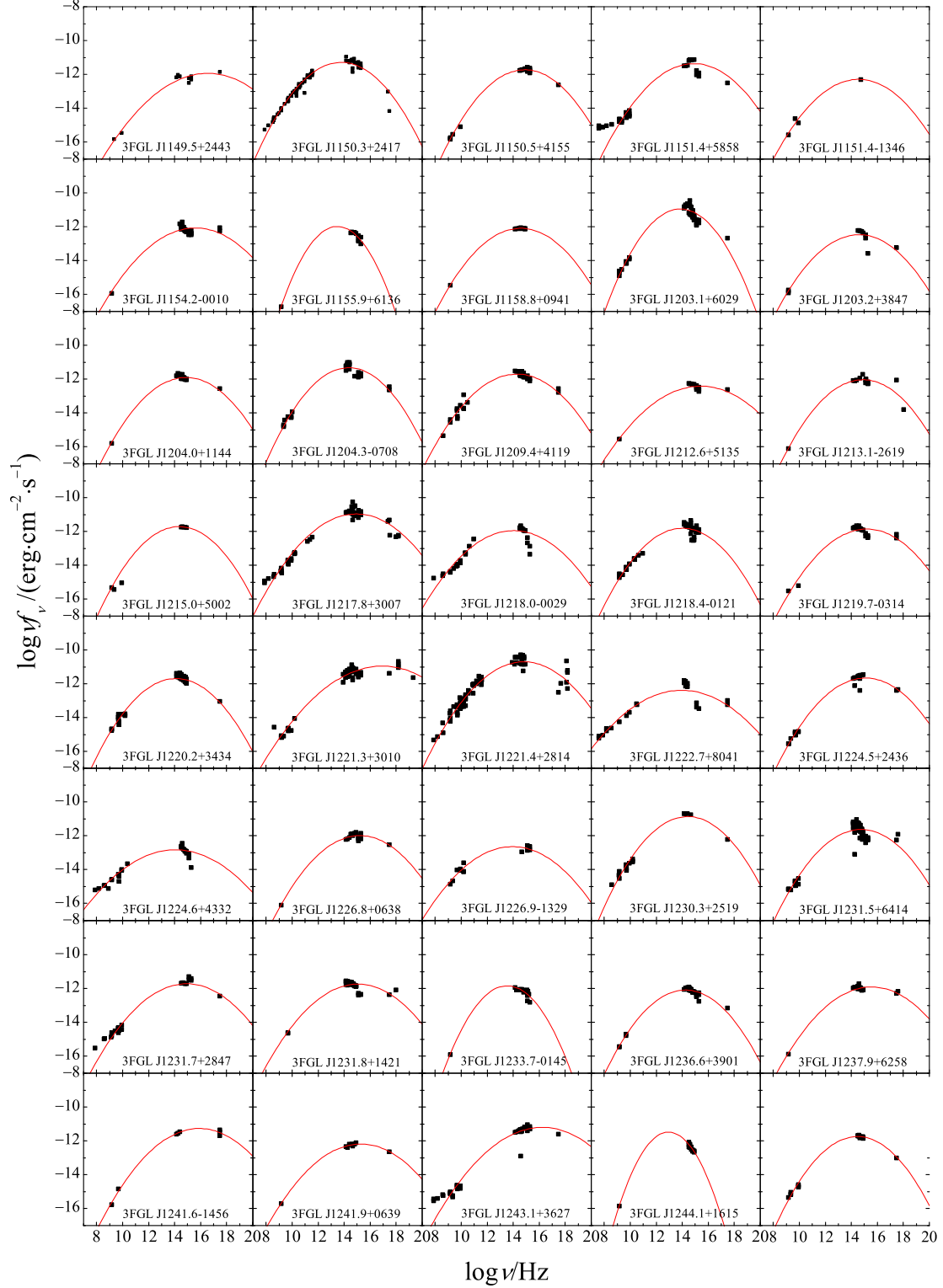


Fig. 23.— Appendix: SED figures for BL Lacs.

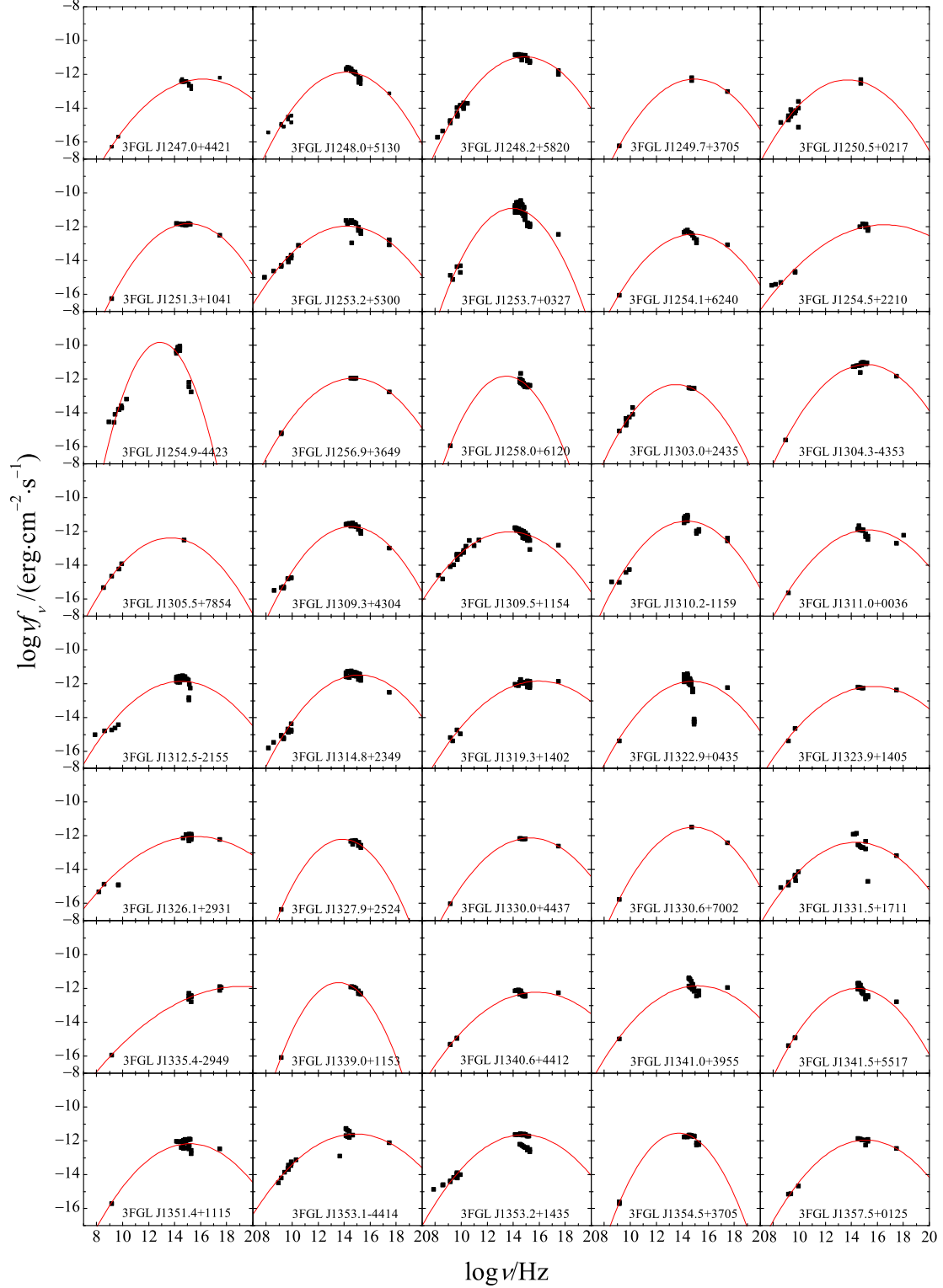


Fig. 24.— Appendix: SED figures for BL Lacs.

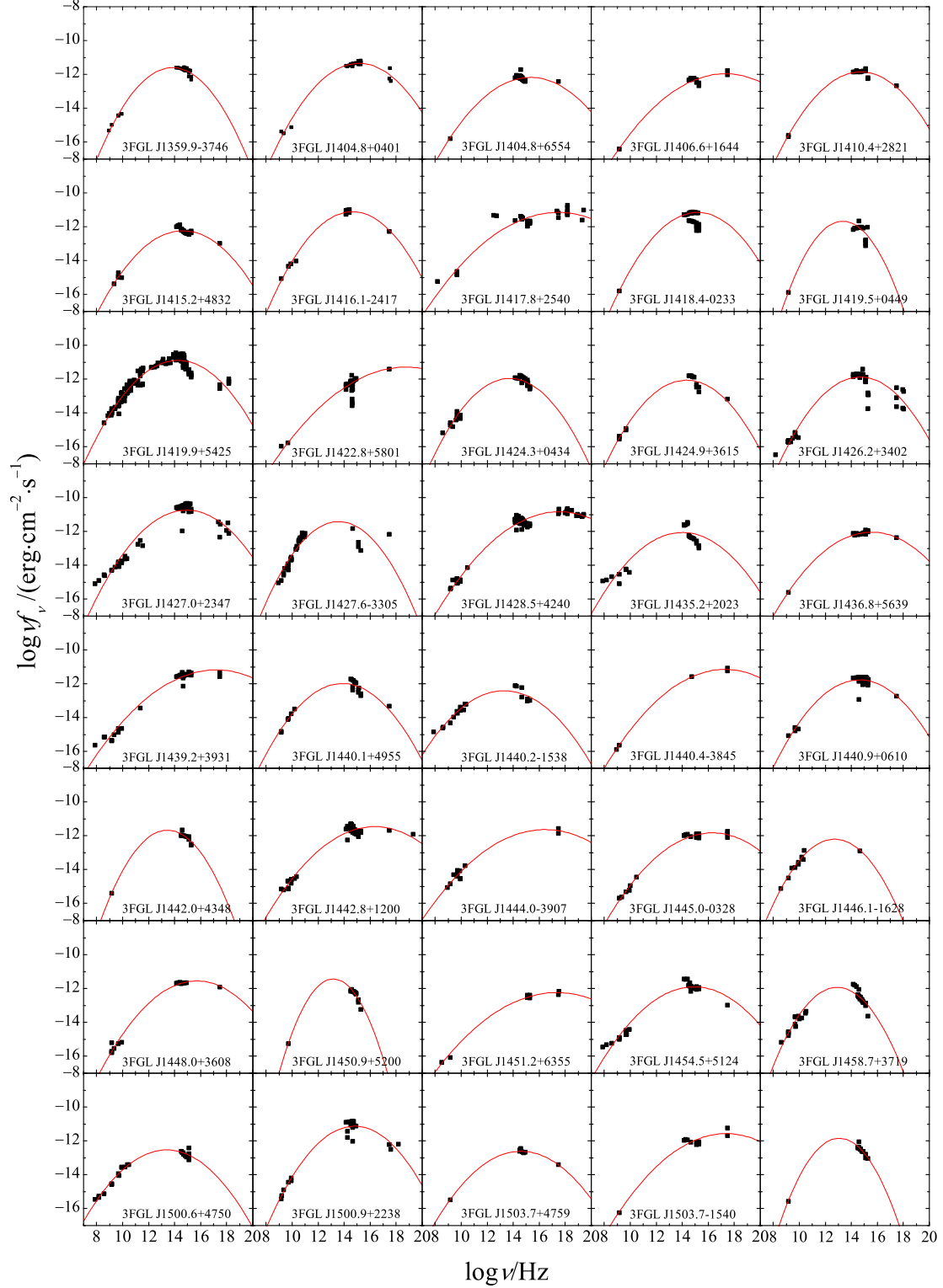


Fig. 25.— Appendix: SED figures for BL Lacs.

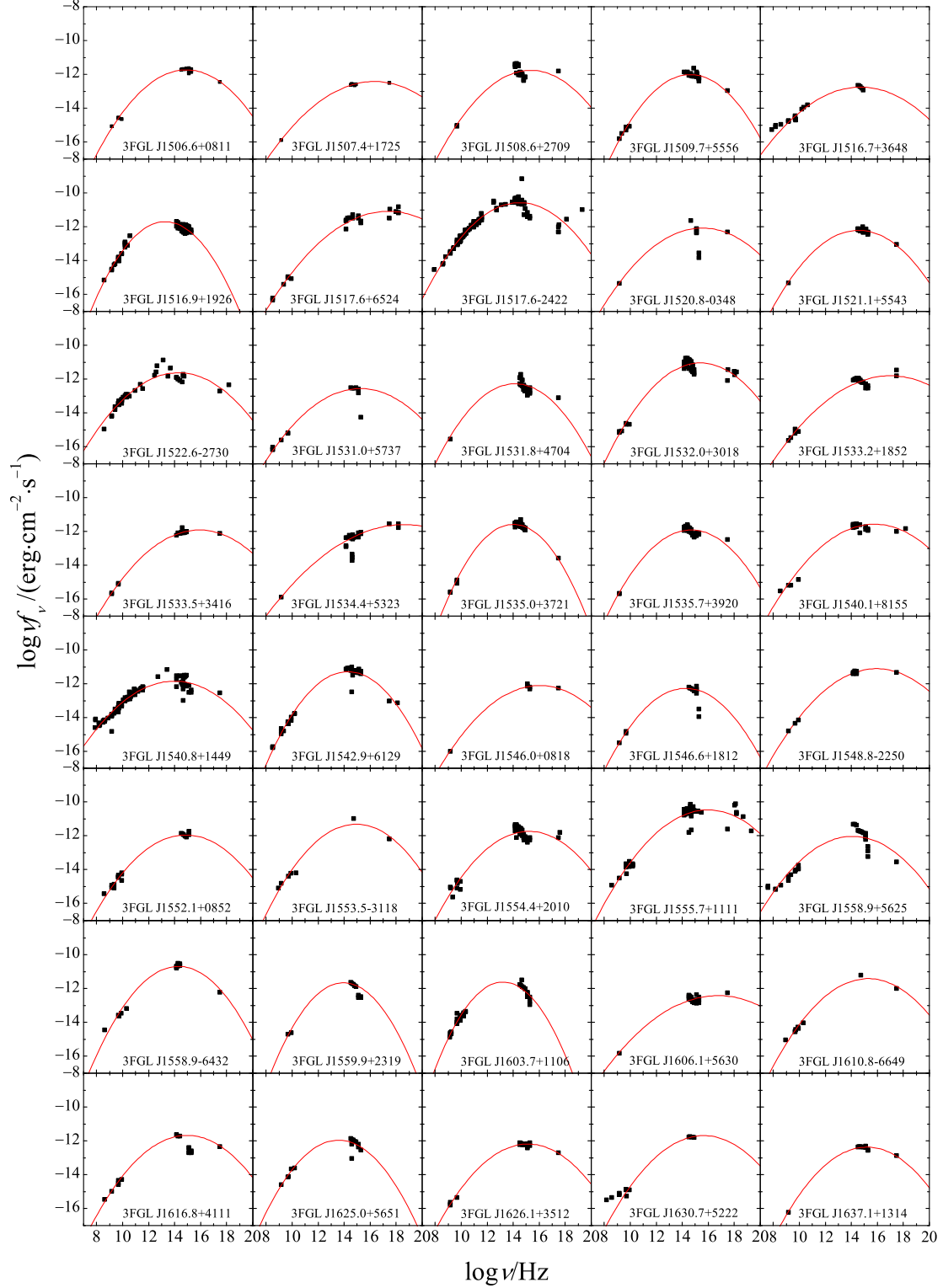


Fig. 26.— Appendix: SED figures for BL Lacs.

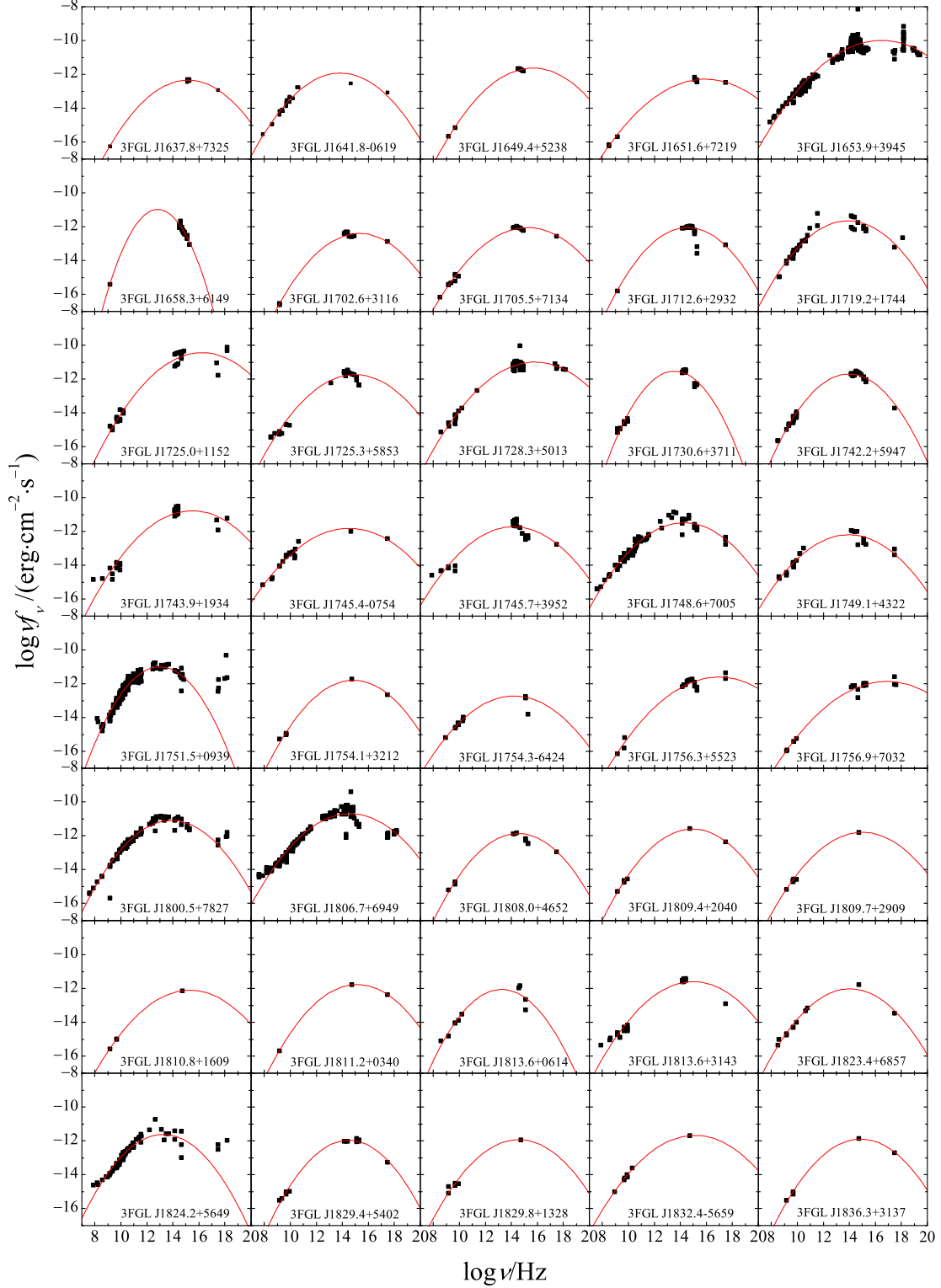


Fig. 27.— Appendix: SED figures for BL Lacs.

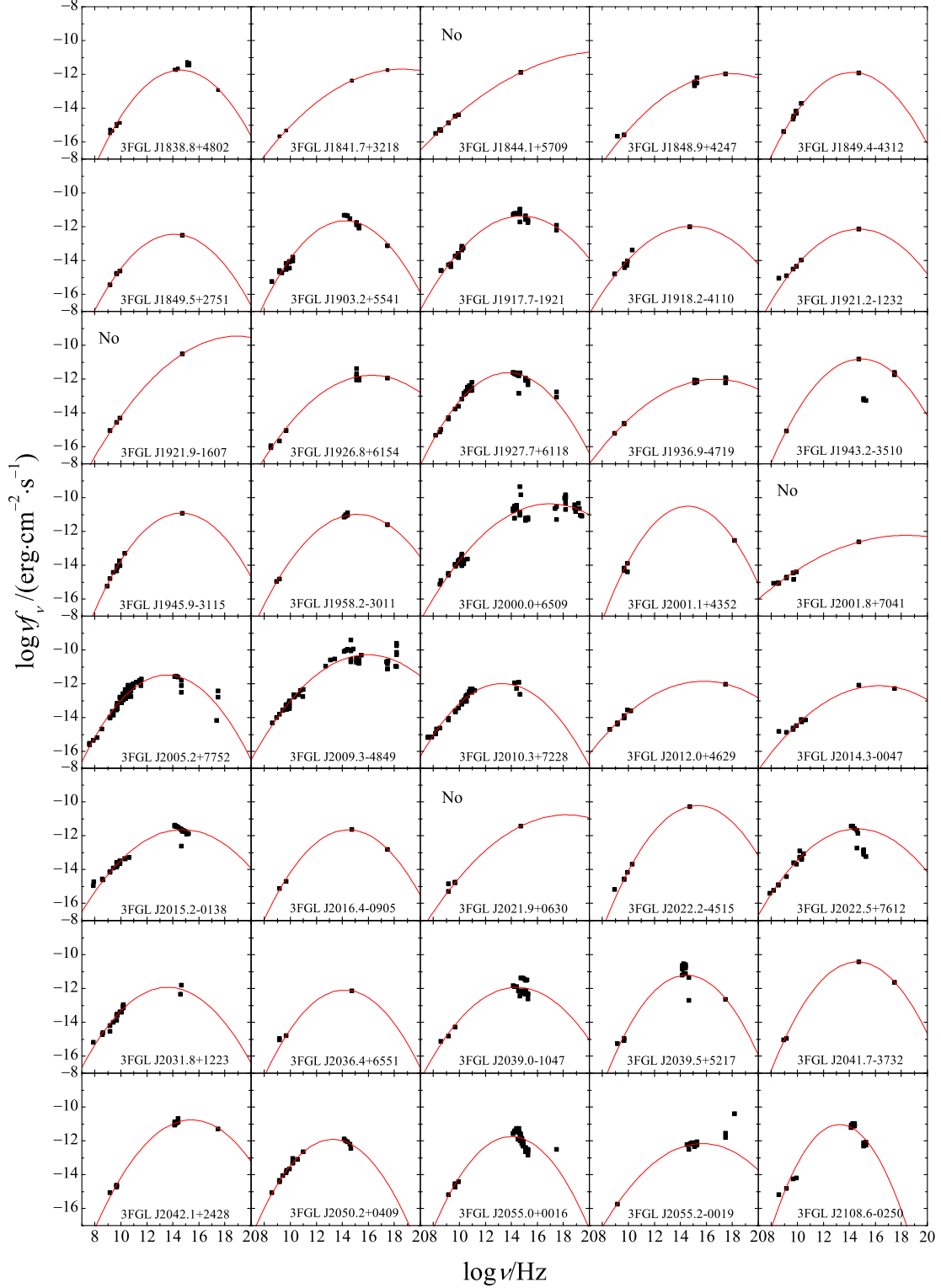


Fig. 28.— Appendix: SED figures for BL Lacs.

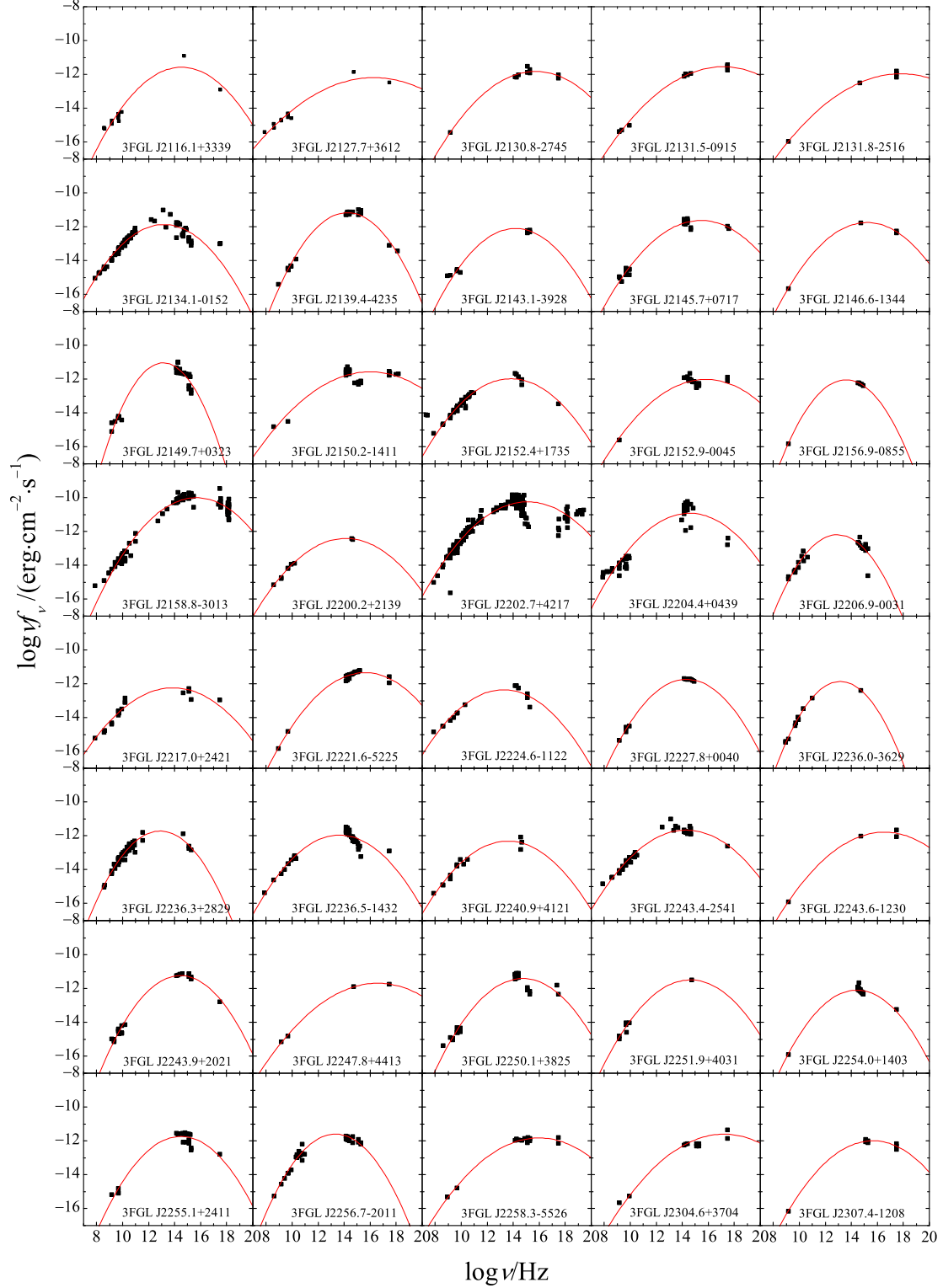


Fig. 29.— Appendix: SED figures for BL Lacs.

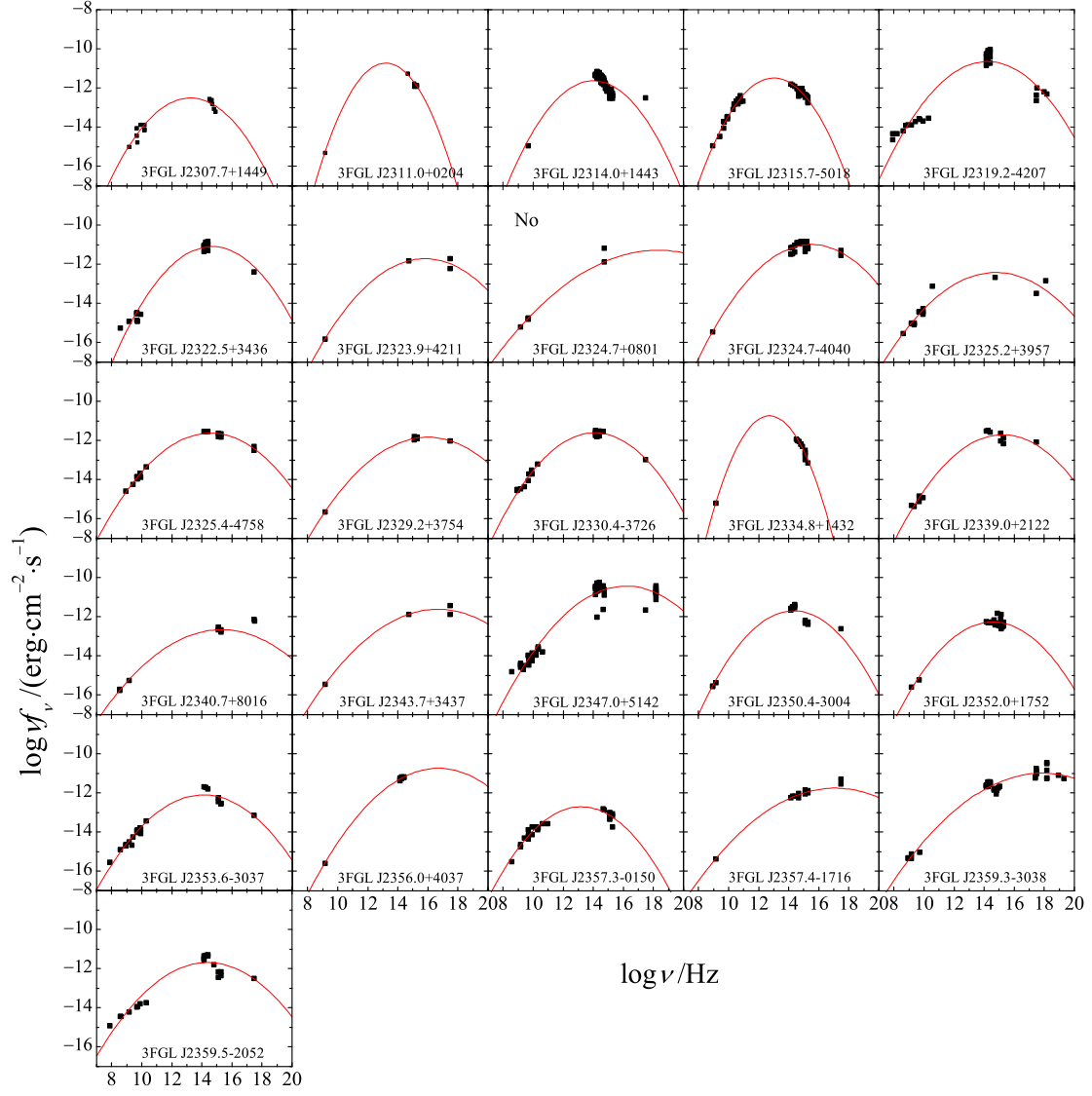


Fig. 30.— Appendix: SED figures for BL Lacs.

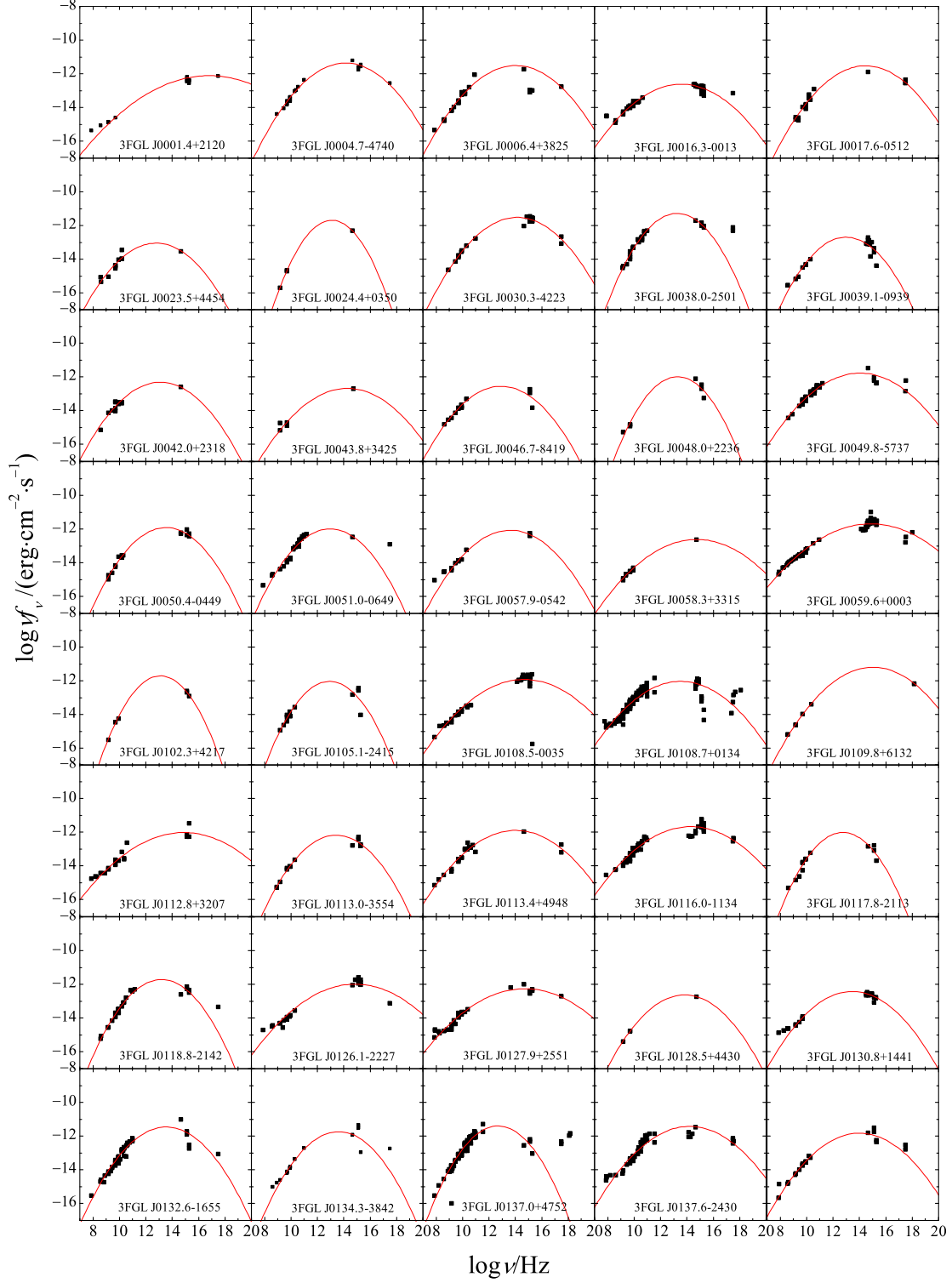


Fig. 31.— Appendix: SED figures for FSRQs.

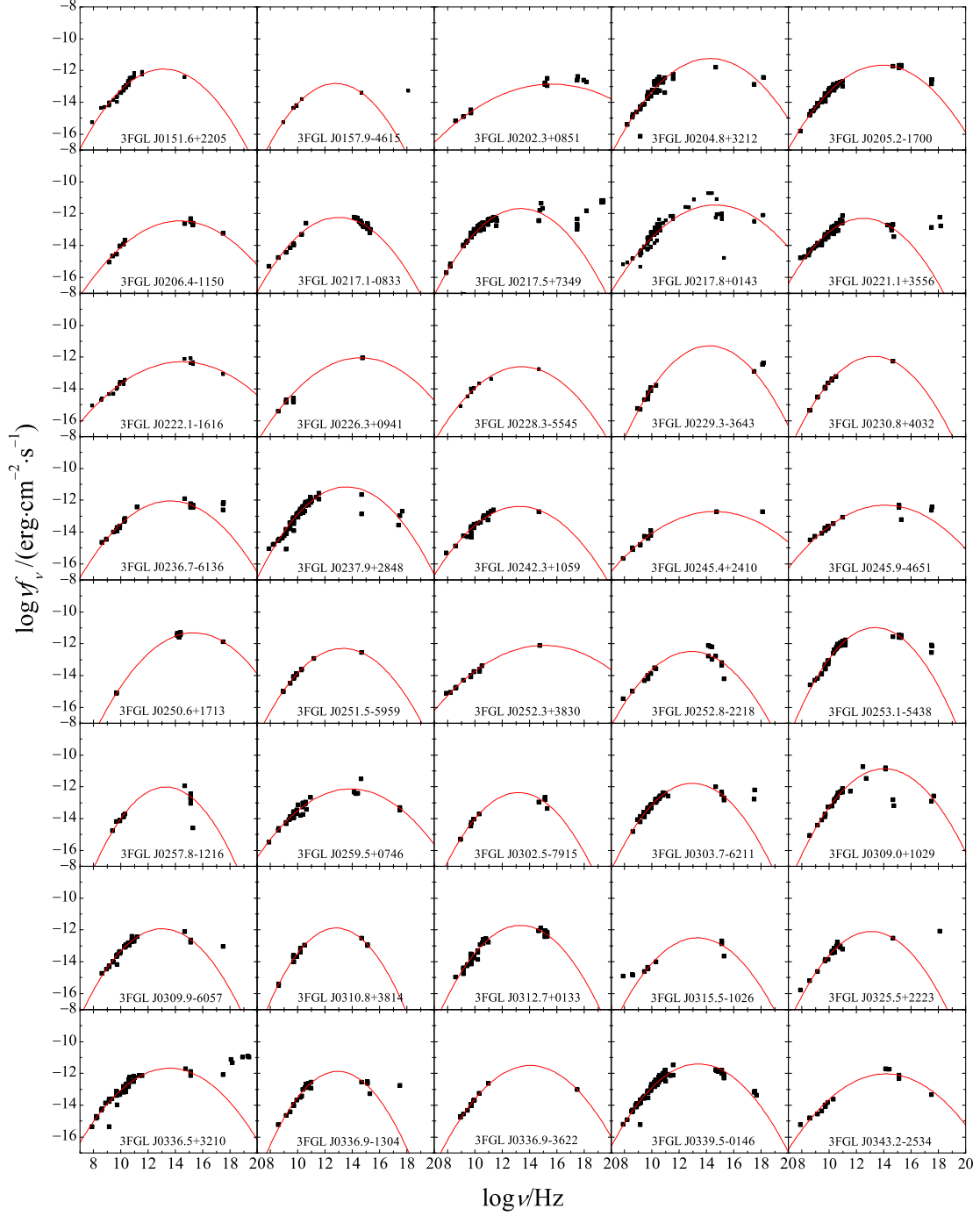


Fig. 32.— Appendix: SED figures for FSRQs.

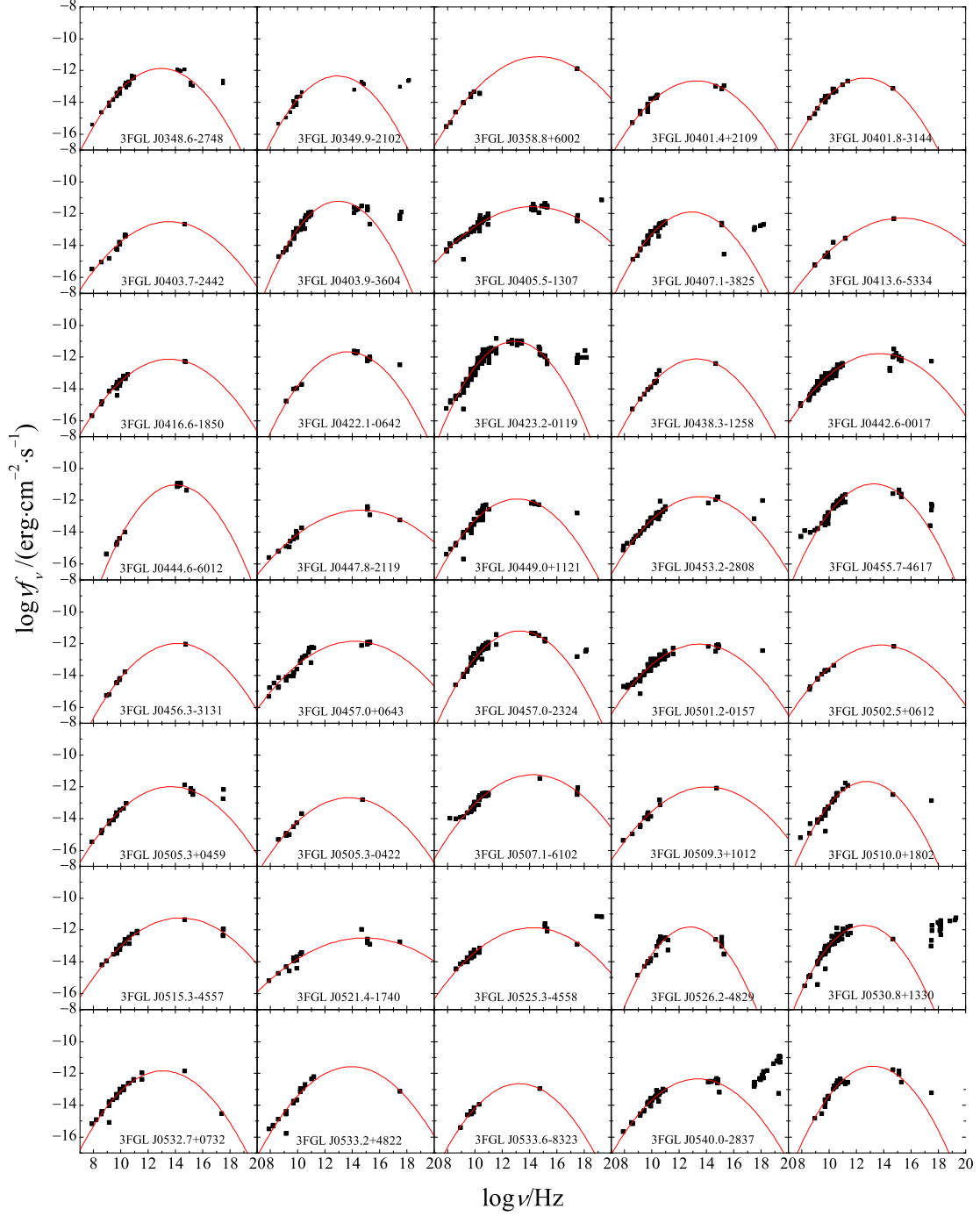


Fig. 33.— Appendix: SED figures for FSRQs.

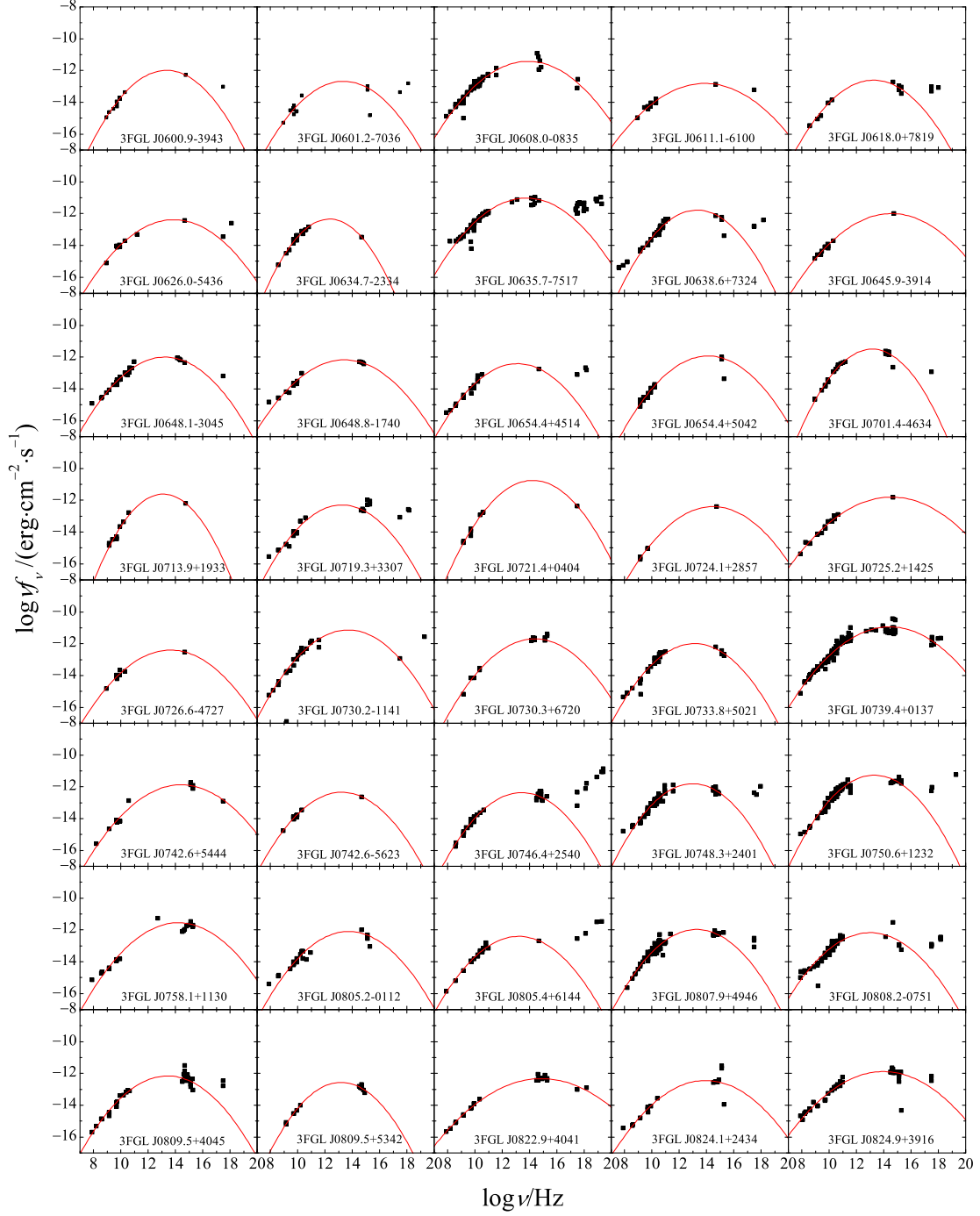


Fig. 34.— Appendix: SED figures for FSRQs.

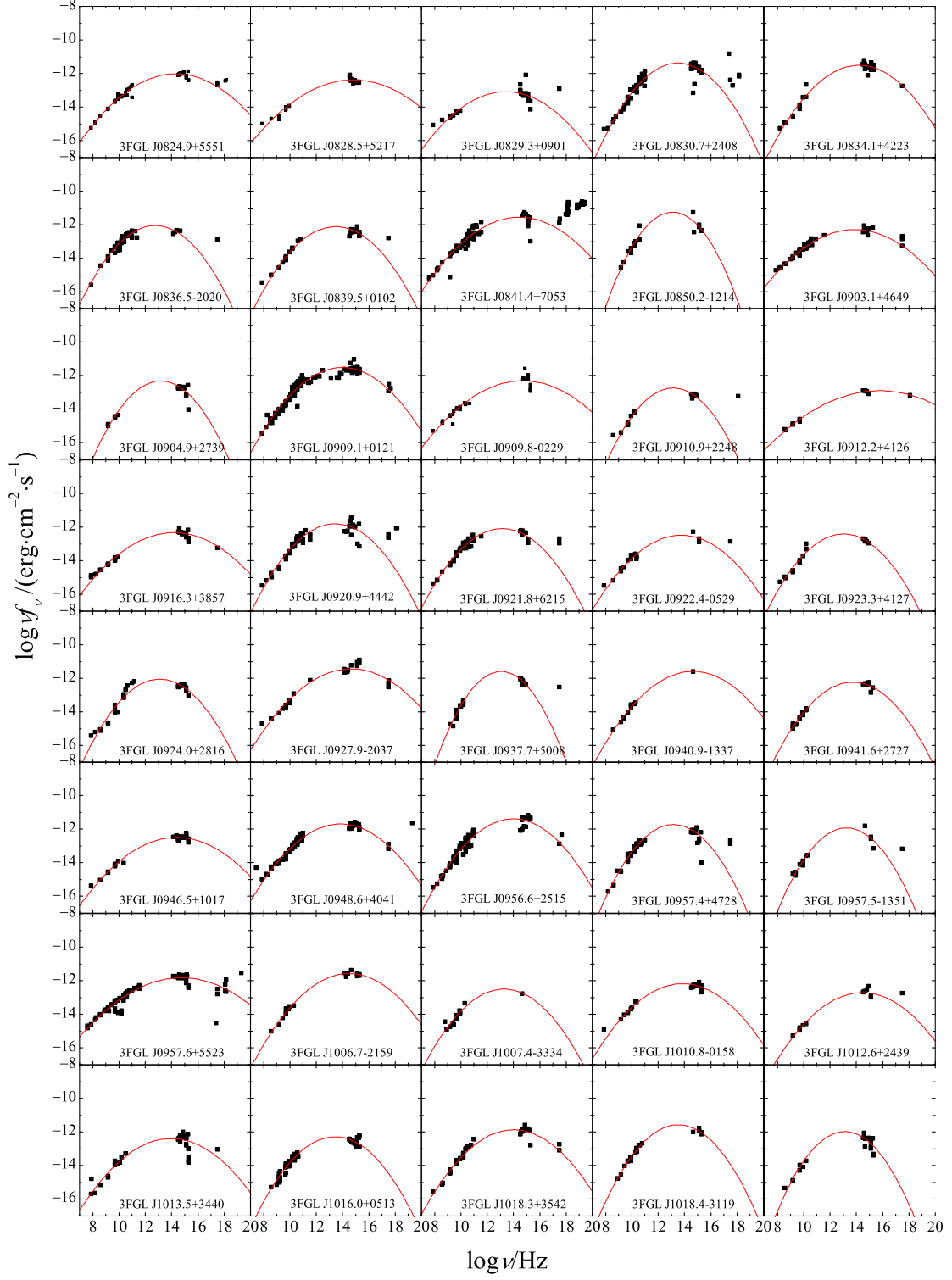


Fig. 35.— Appendix: SED figures for FSRQs.

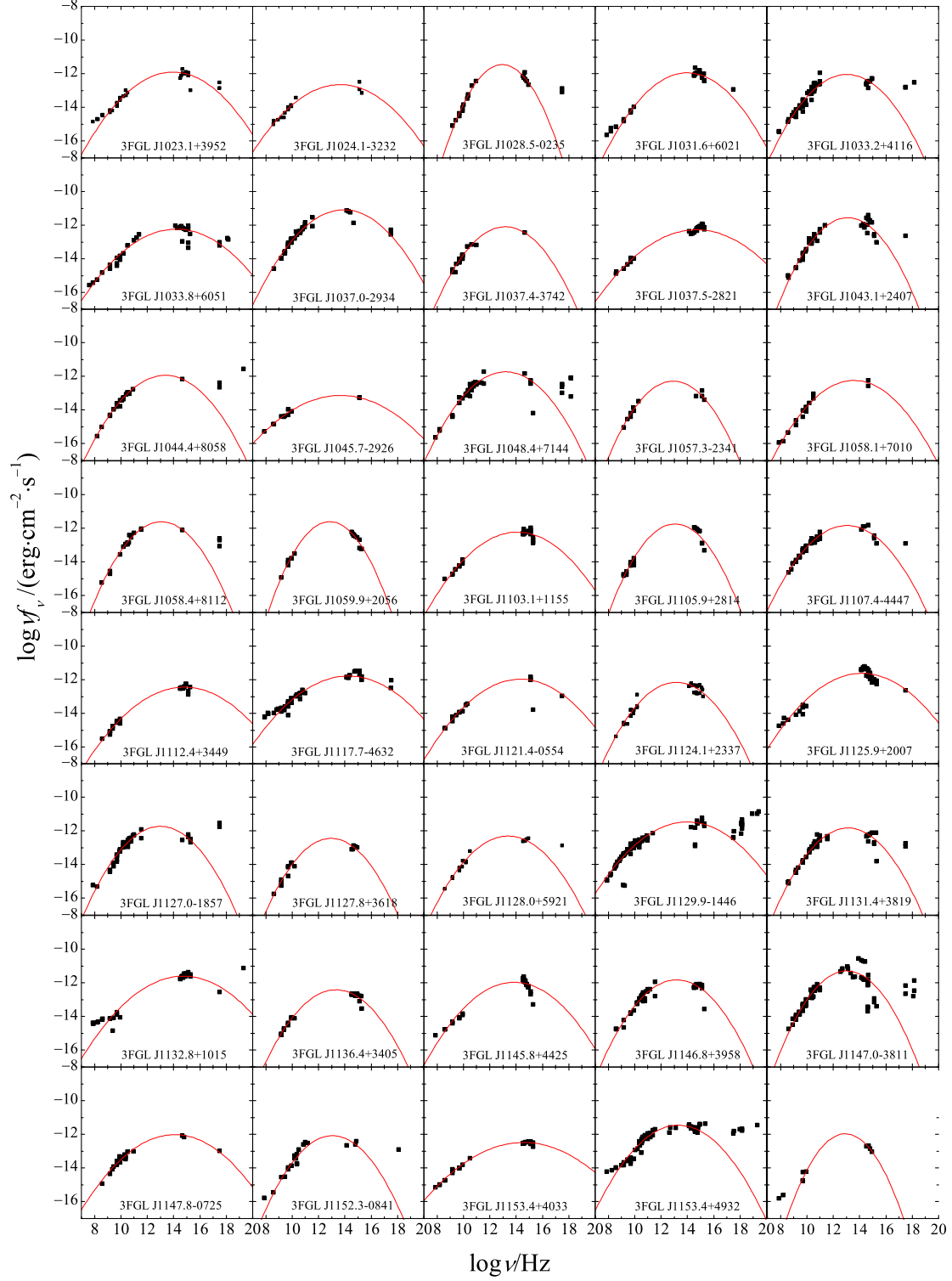


Fig. 36.— Appendix: SED figures for FSRQs.

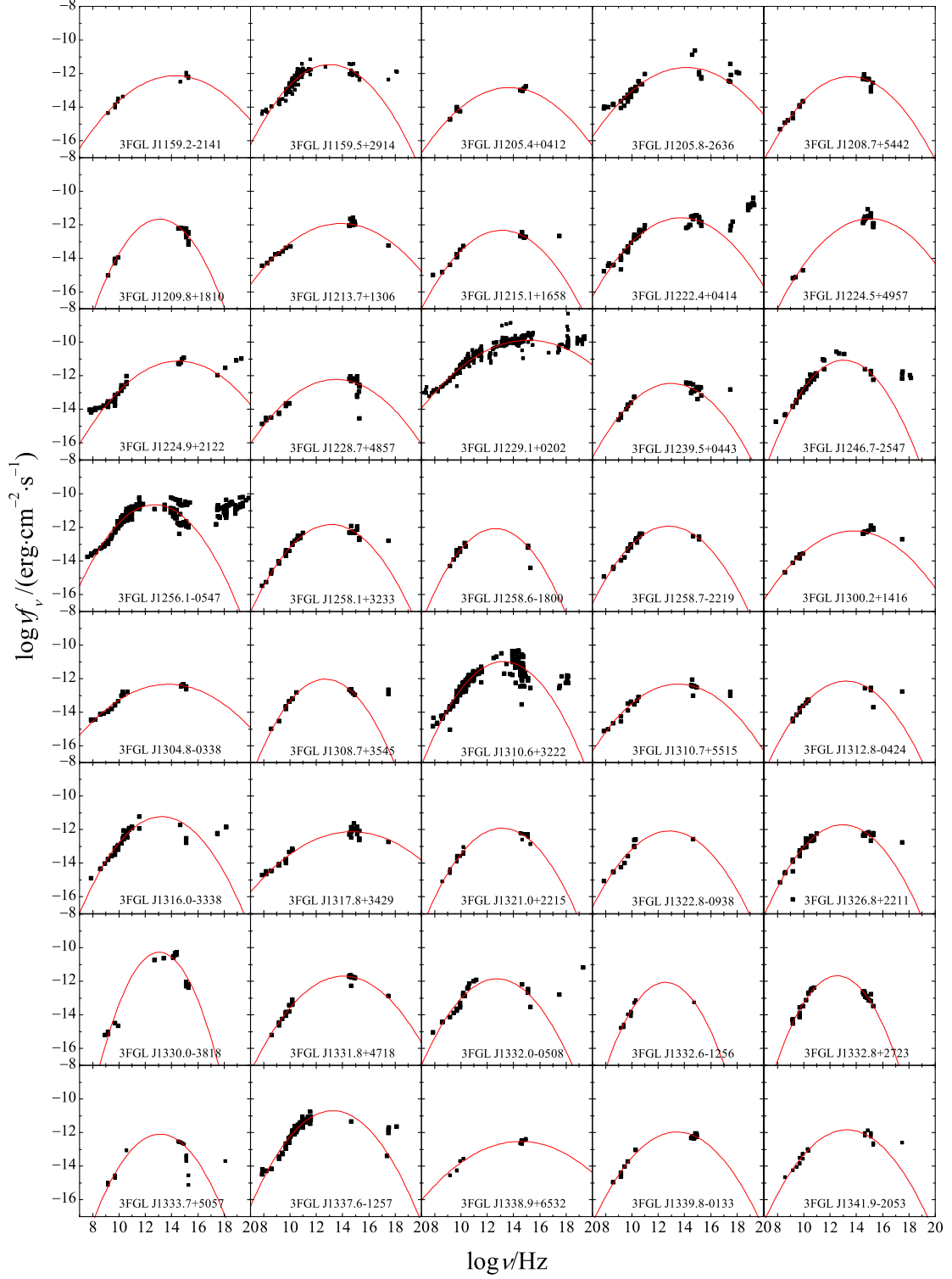


Fig. 37.— Appendix: SED figures for FSRQs.

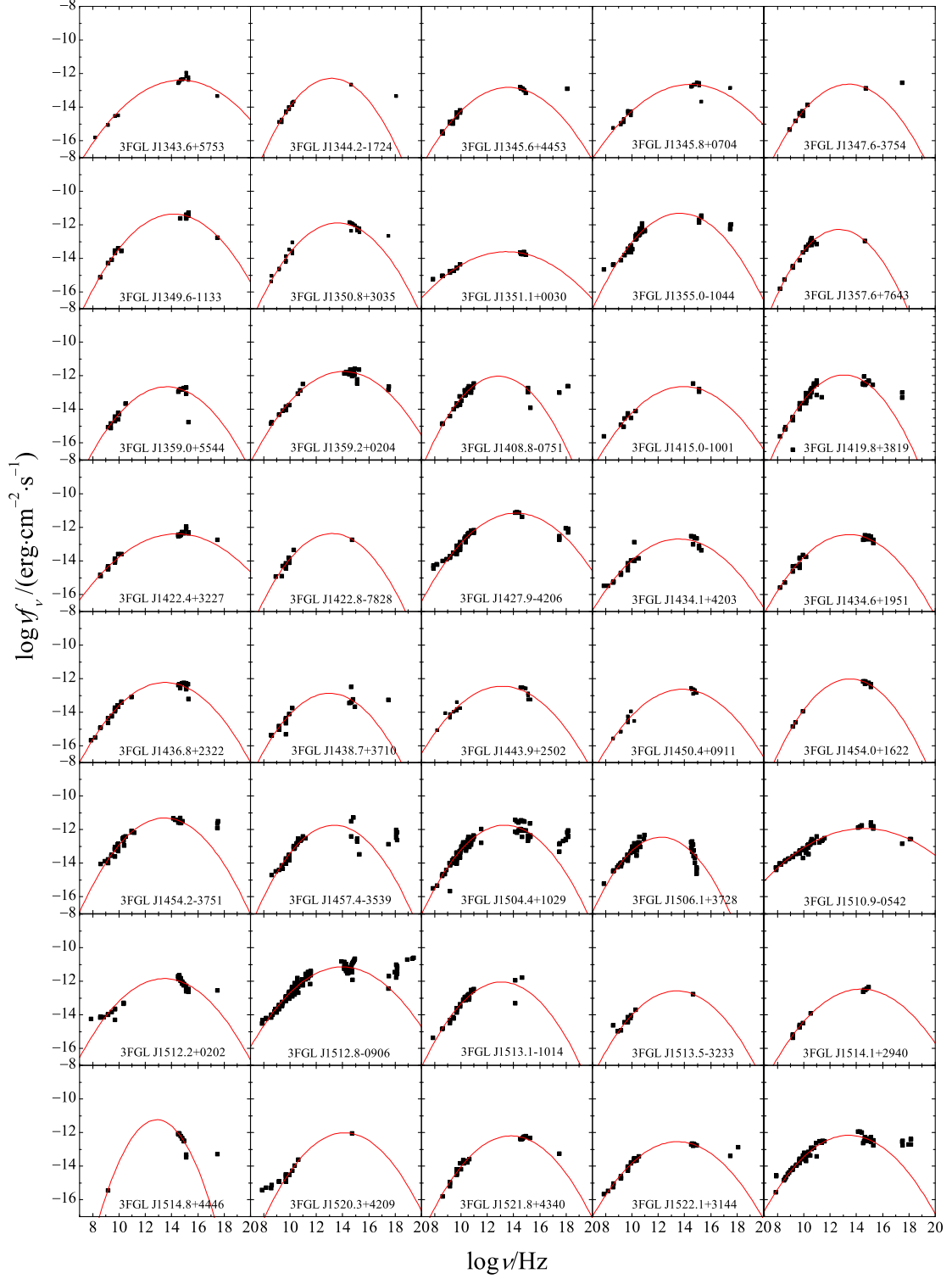


Fig. 38.— Appendix: SED figures for FSRQs.

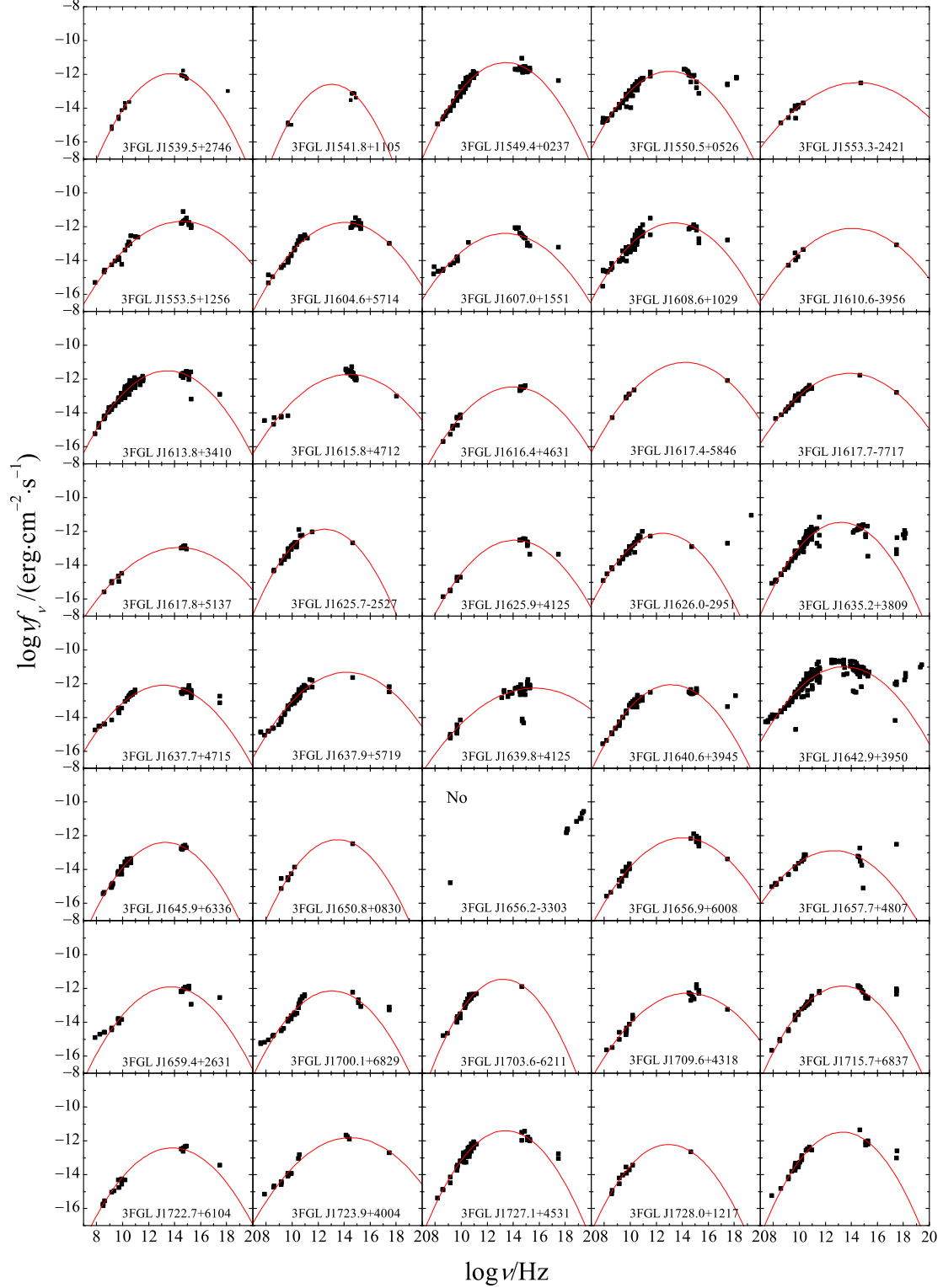


Fig. 39.— Appendix: SED figures for FSRQs.

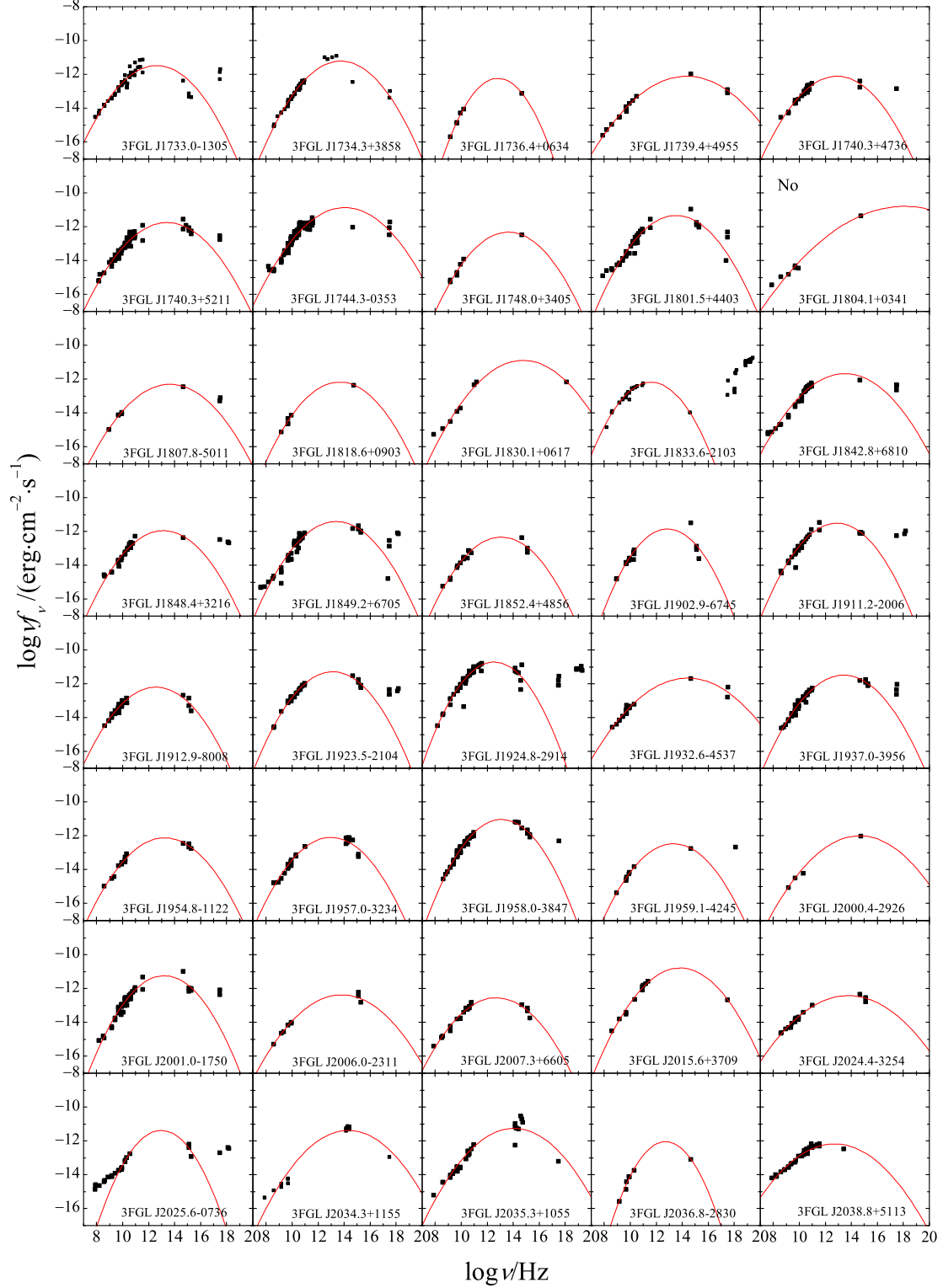


Fig. 40.— Appendix: SED figures for FSRQs.

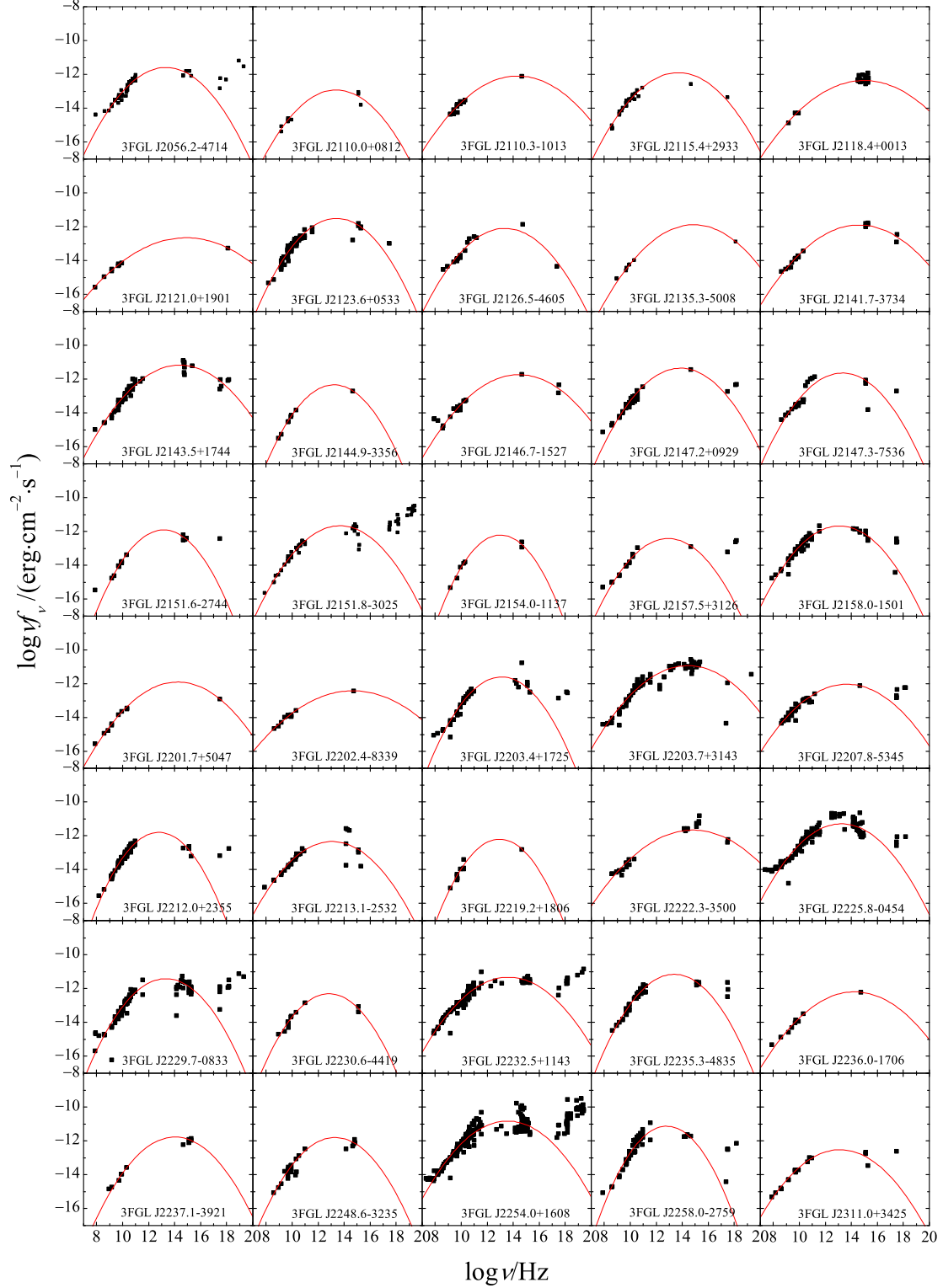


Fig. 41.— Appendix: SED figures for FSRQs.

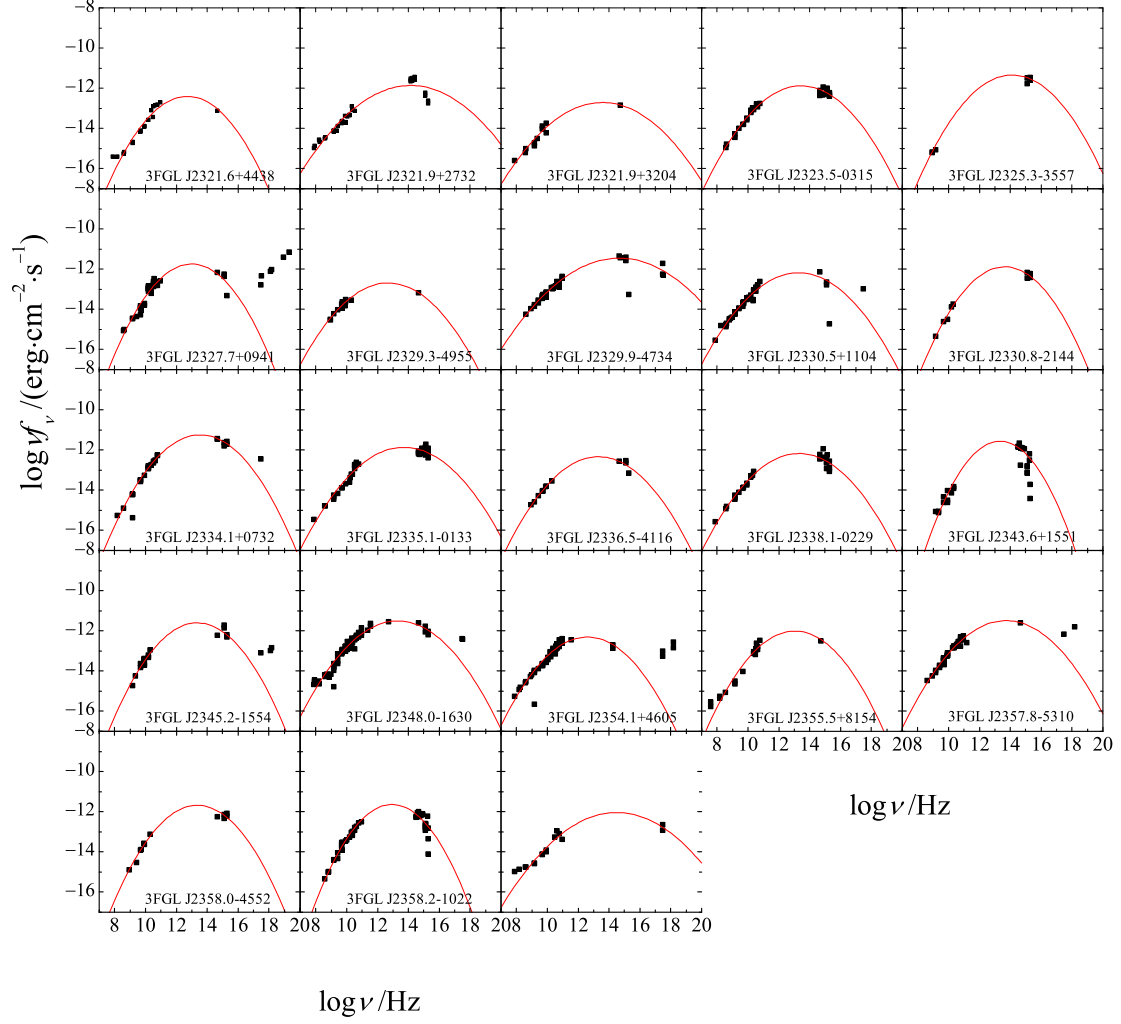


Fig. 42.— Appendix: SED figures for FSRQs.

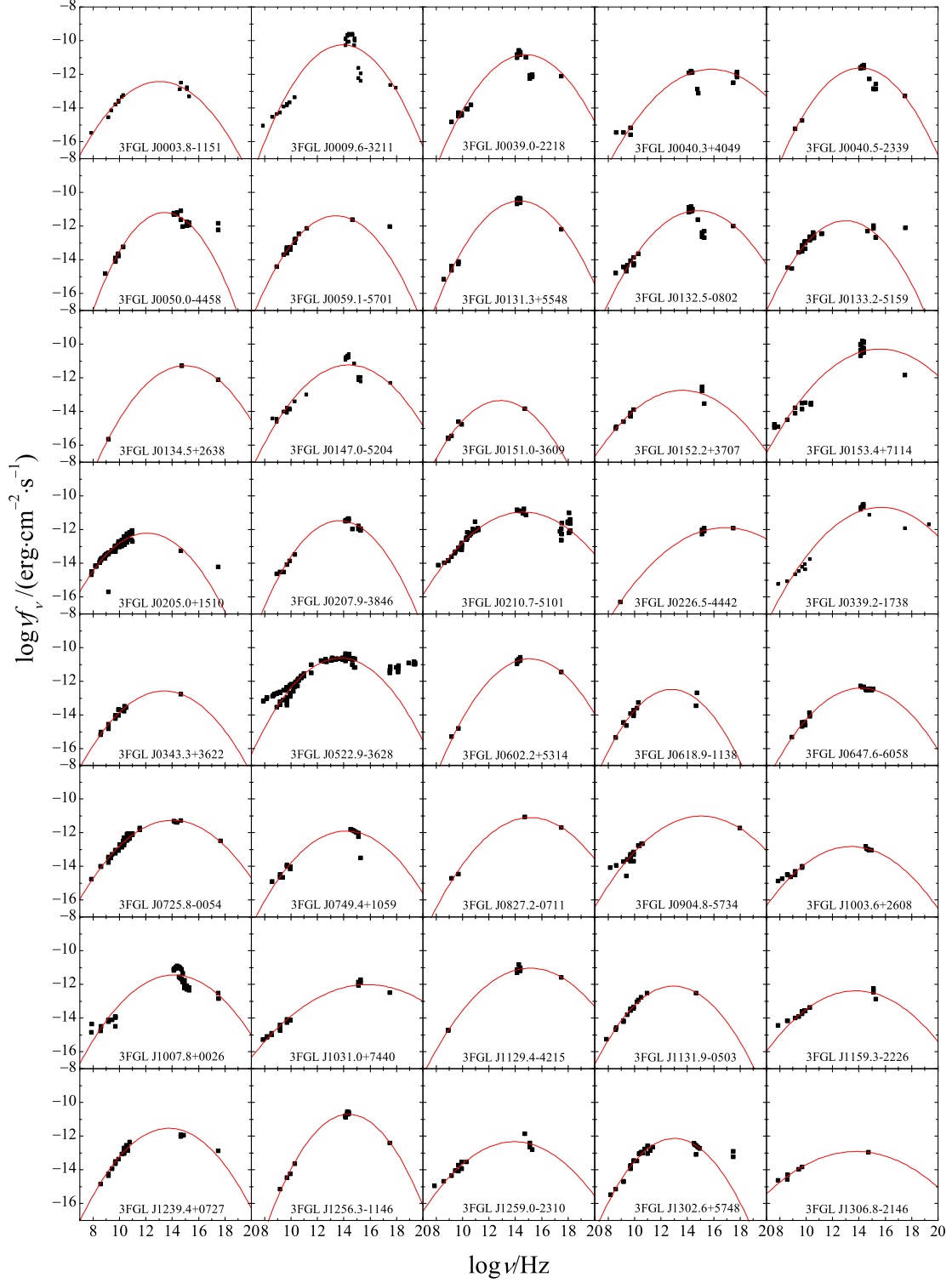


Fig. 43.— Appendix: SED figures for UCBs.

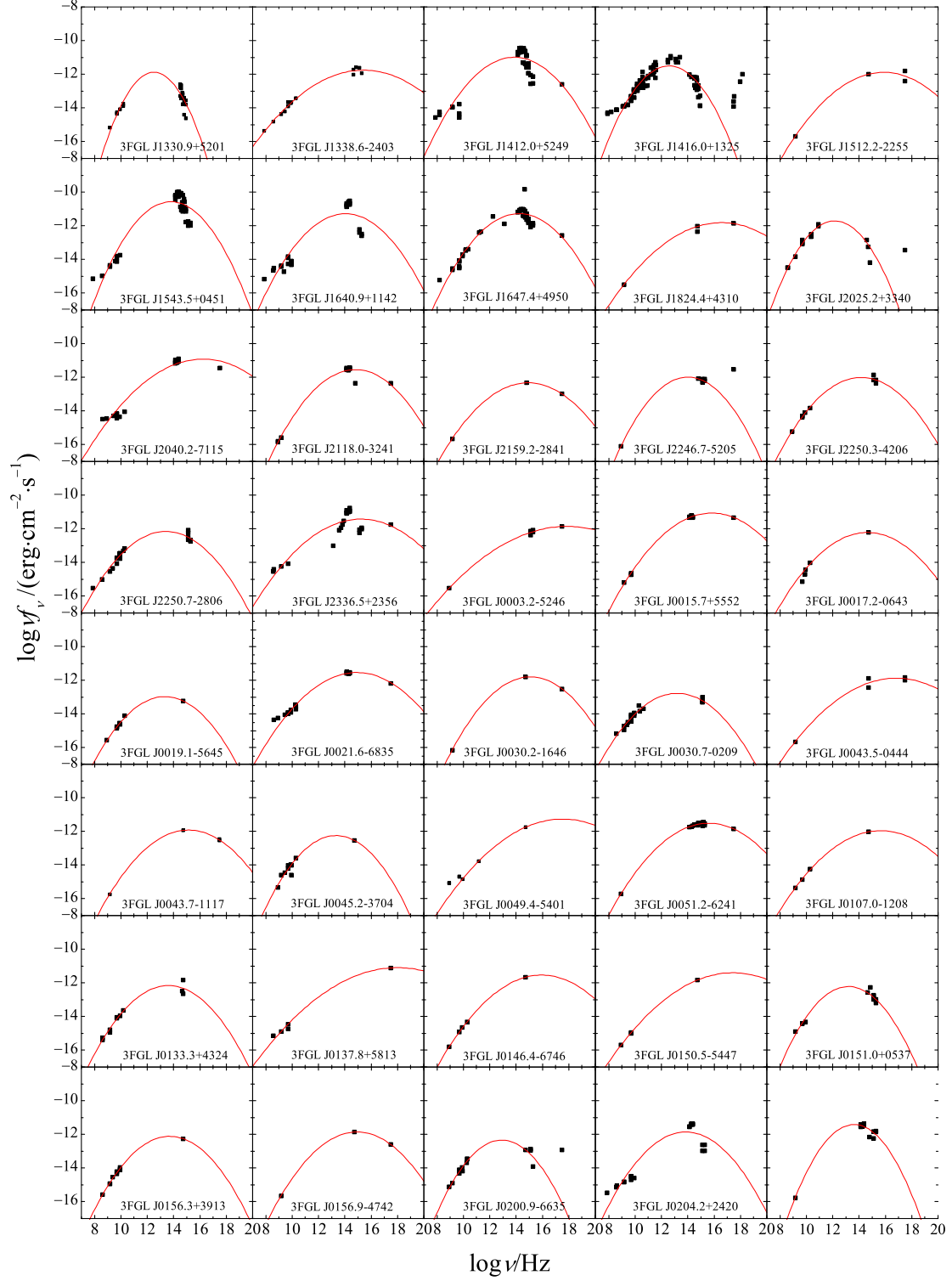


Fig. 44.— Appendix: SED figures for UCBs.

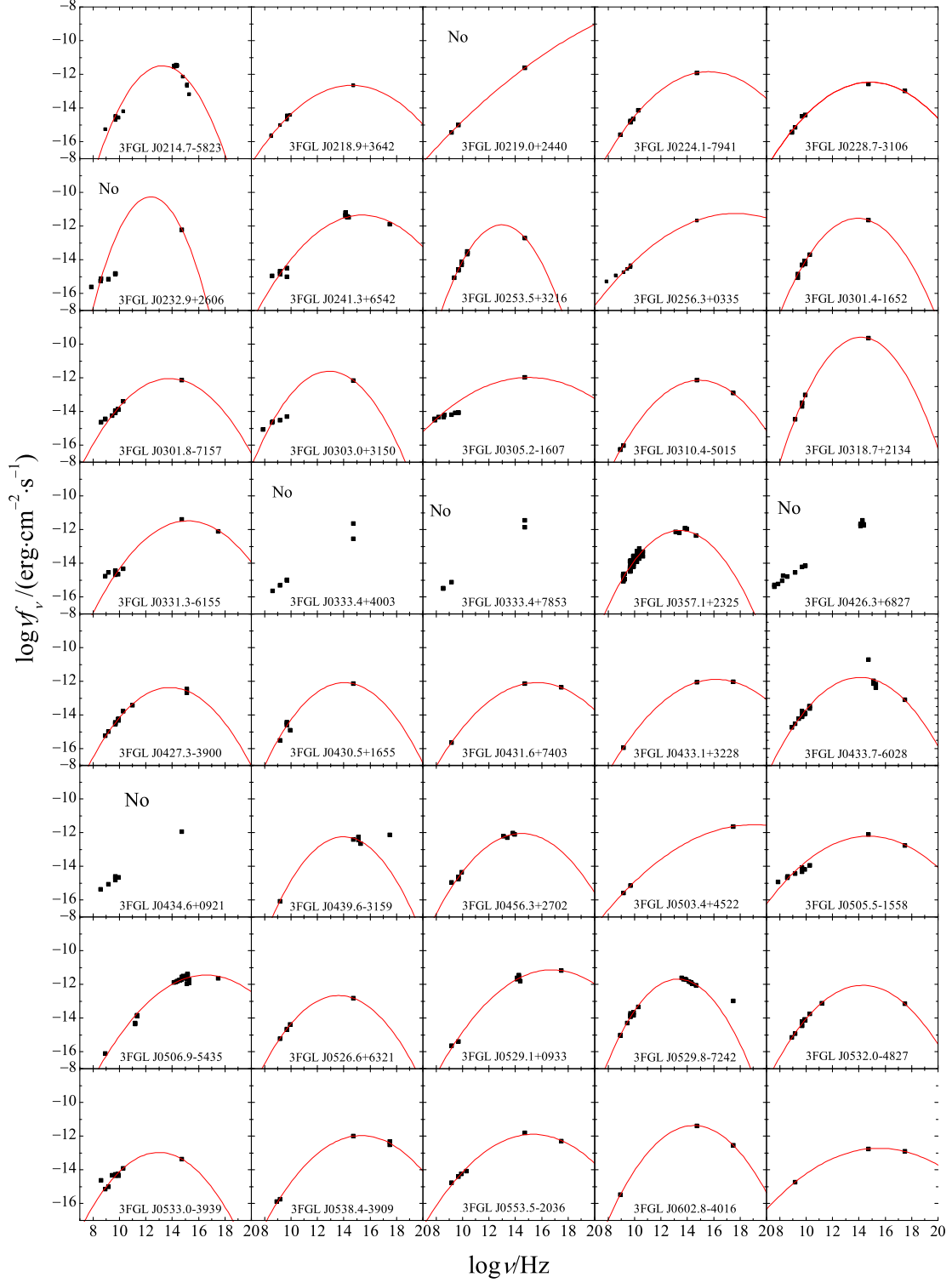


Fig. 45.— Appendix: SED figures for UCBs.

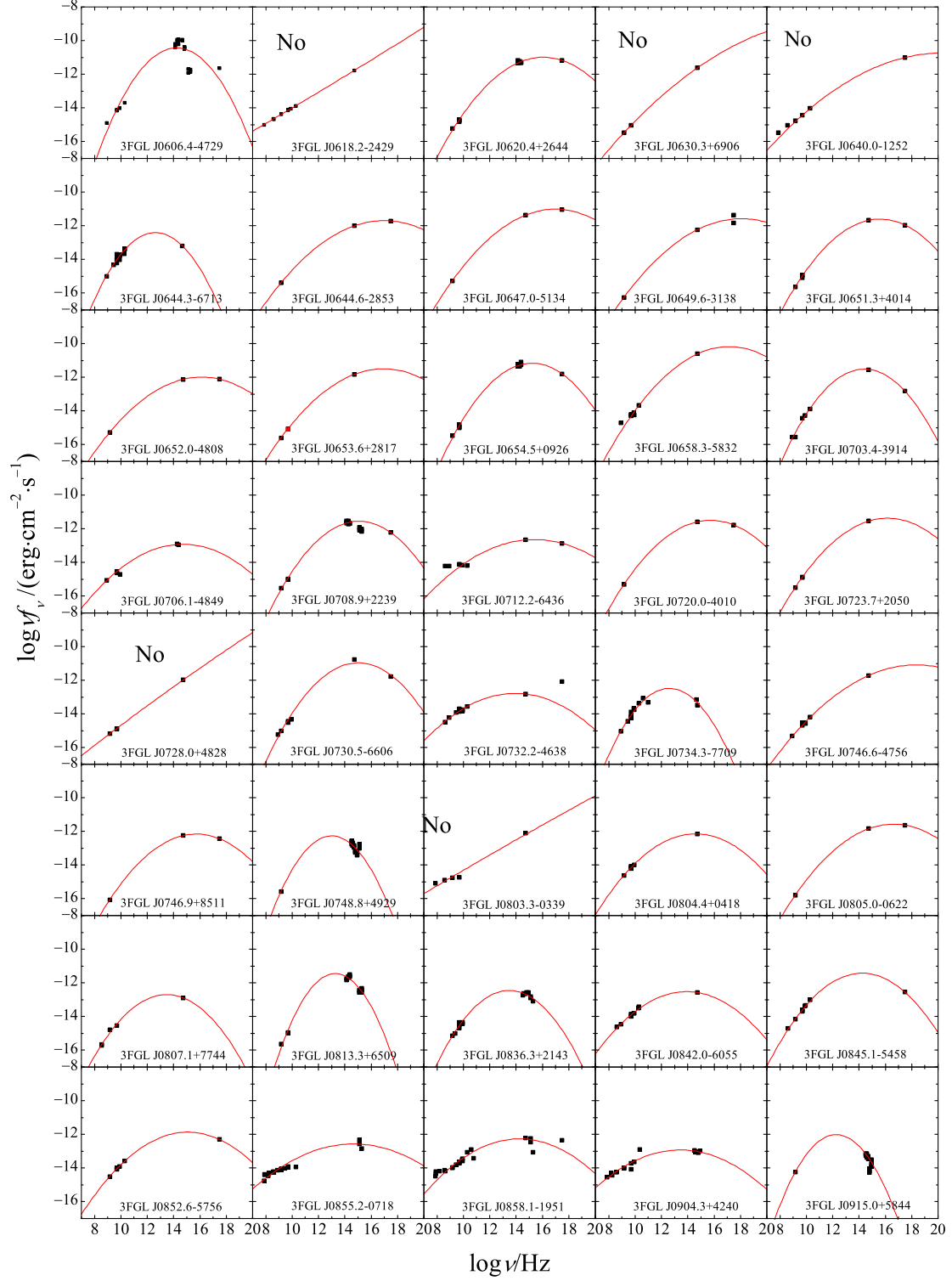


Fig. 46.— Appendix: SED figures for UCBs.

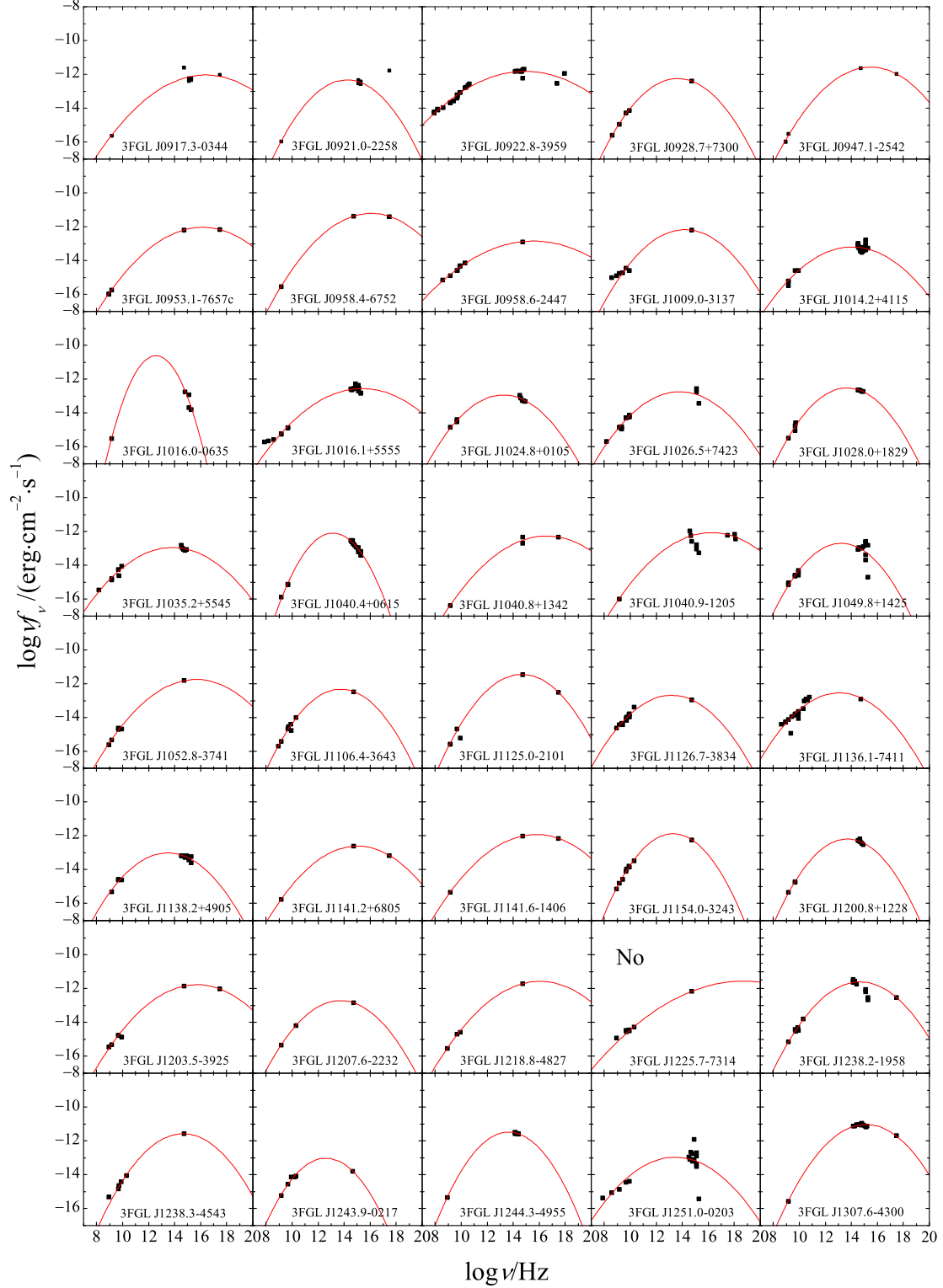


Fig. 47.— Appendix: SED figures for UCBs.

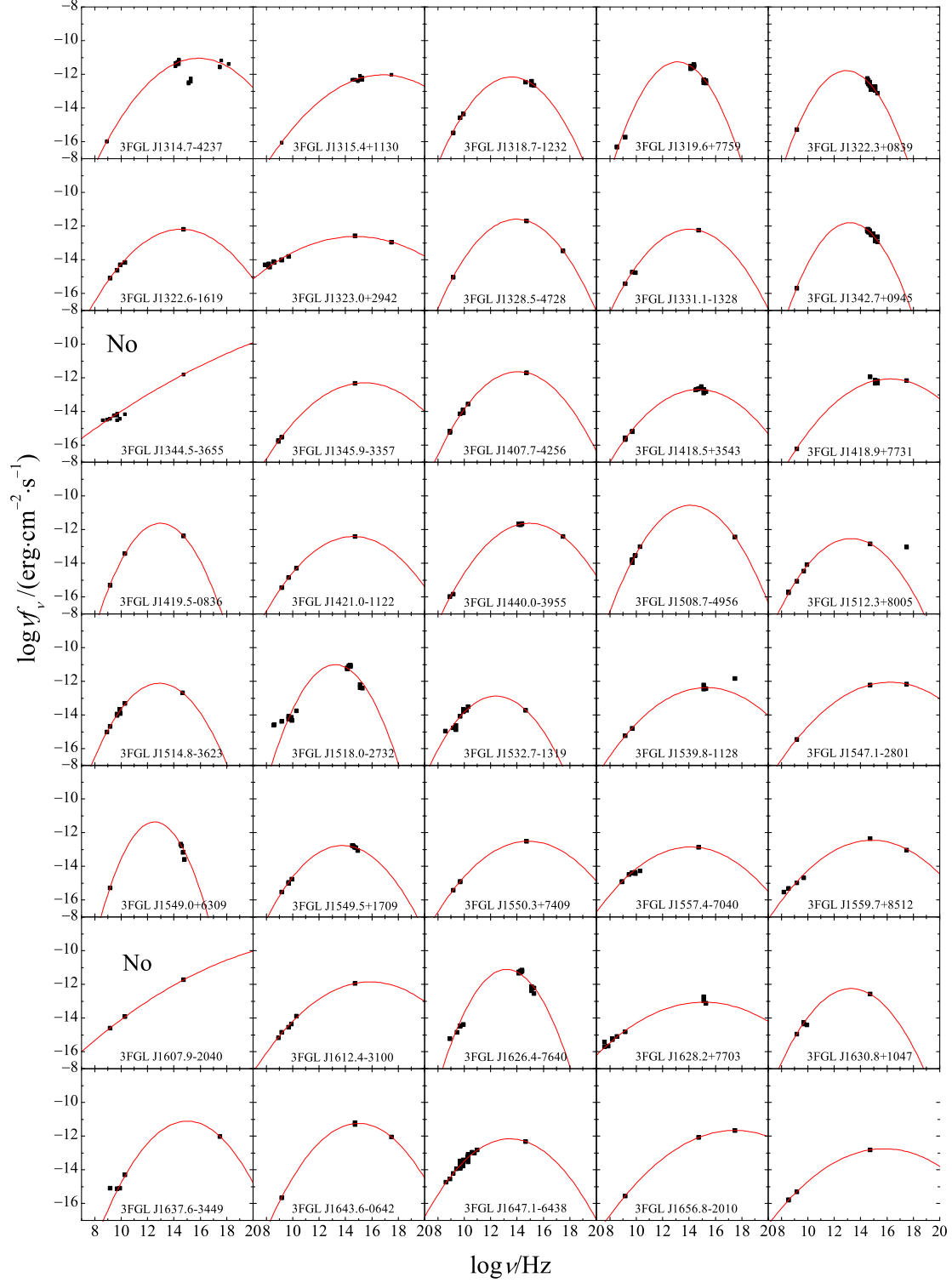


Fig. 48.— Appendix: SED figures for UCBs.

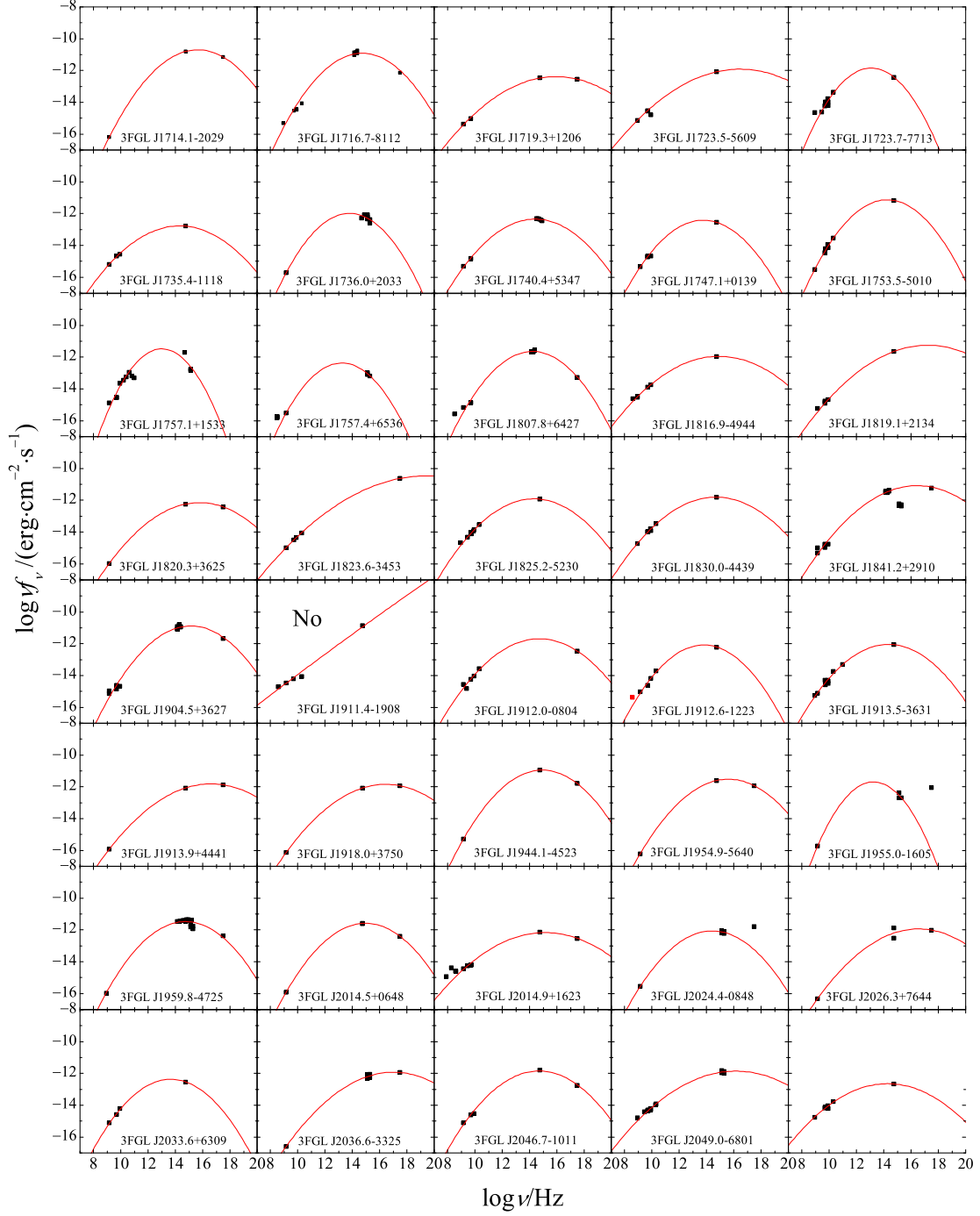


Fig. 49.— Appendix: SED figures for UCBs.

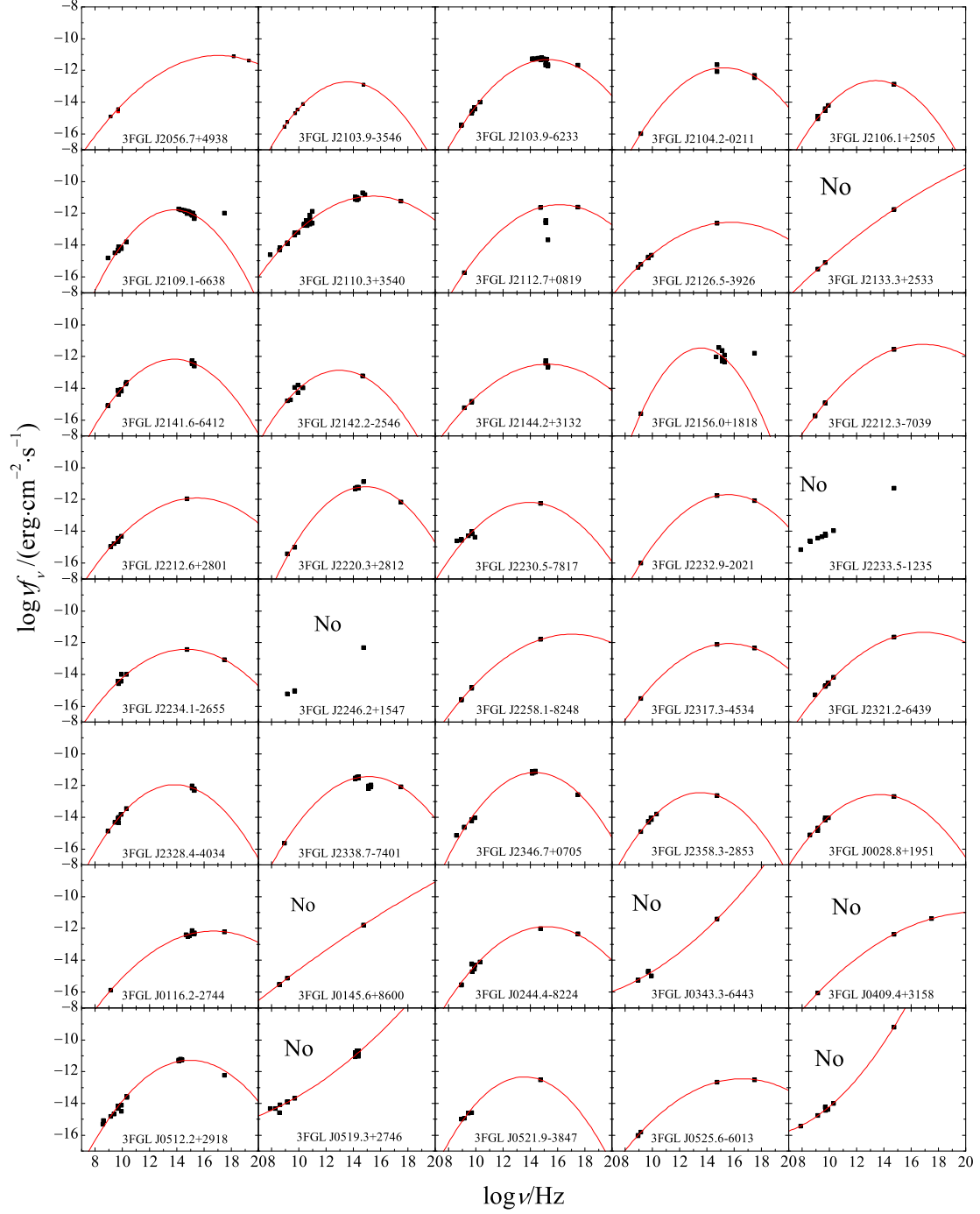


Fig. 50.— Appendix: SED figures for UCBs.

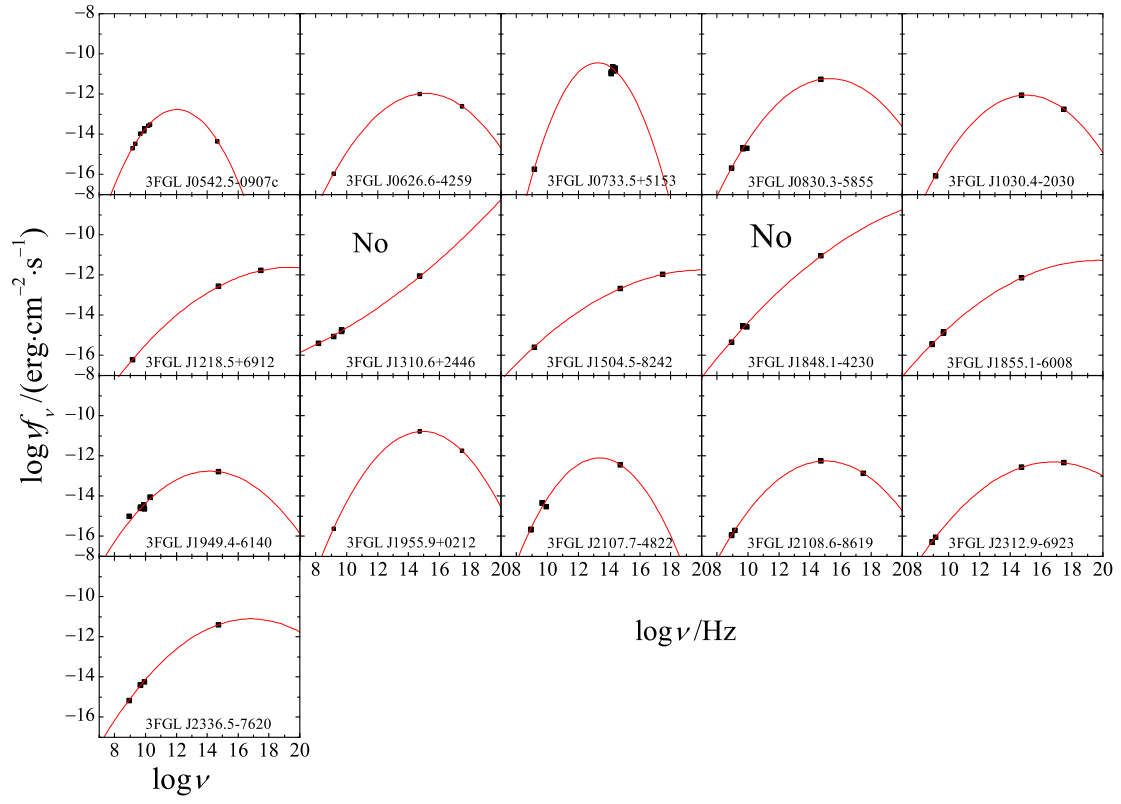


Fig. 51.— Appendix: SED figures for UCBs.